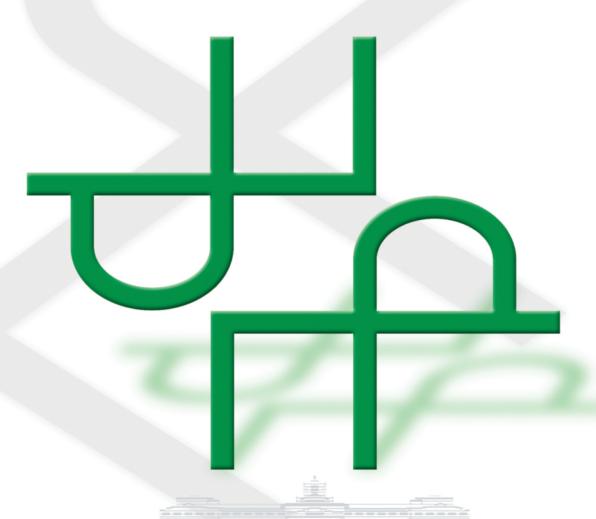
EKOHOMNKA

3



LXII

NIŠ, 2016

МЕЂУНАРОЛНИ ЧАСОПИС ЗА ЕКОНОМСКУ ТЕОРИЈУ И ПРАКСУ И ДРУШТВЕНА ПИТАЊА

Часопис излази четири пута голишње

ИЗДАВАЧ: Друштво економиста "Економика" Ниш

СУЙЗДАВАЧЙ: Економски факултет у Приштини, Институт за економику пољопривреде - Београд, Факултет за пословне студије и право - Београд, Факултет за менацмент - Сремски Карловци, Друштво економиста Ниша.

ГЛАВНИ И ОДГОВОРНИ УРЕДНИК:

Проф. др Драгољуб Симоновић

ЗАМЕНИК ГЛАВНОГ И ОДГОВОРНОГ УРЕДНИКА

Др Зоран Симоновић

ИЗВРШНИ УРЕЛНИЦИ:

Проф. др Бојан Крстић, Ниш (Србија)

Проф. др Благоје Пауновић, Београд (Србија)

Проф. др Славомир Милетић, Приштина (Србија)

Проф. др Живота Радосављевић, Београд (Србија)

Проф. др Јонел Субић, Београд (Србија) Проф. др Бобан Стојановић, Ниш (Србија)

УРЕЛНИЦИ САРАЛНИЦИ:

Проф. Др Снежана Ђекић, Ниш (Србија)

Проф. др Драган Момировић, Београд (Србија)

Др Горан Квргић, Сремски Карловци (Србија)

Проф. др Драго Цвијановић, Врњачка Бања (Србија)

Др Александар Ђурић, Београд (Србија)

РЕДАКЦИЈСКИ КОЛЕГИЈУМ

Академик Зоран Лакић, Подгорица (Црна Гора)

Академик Љубиша Папић, Чачак (Србија)

Др Рајмунд Мирдала, Кошице (Словачка)

Др Грег Рингер, Јуџин (САД)

Др Марија Павлова, Велико Трново (Бугарска)

Др Андреј Жан-Василе, Плоешти (Румунија)

Др Јуриј Књазев, Москва (Русија)

Др Мирко Савић, Суботица (Србија)

Др Андрес Карион Гарциа, Валенсија, (Шпанија)

Др Рената Краковска, Варшава (Пољска)

Др Љубинка Јоксимовић, Београд (Србија)

Др Алехандру Неделеа, Сучева (Руманија)

Др Набиева У.Н., Махачкала (Русија)

Др Слободан Цветановић, Ниш (Србија)

Др Збигниев Пашек, Краков (Пољска)

Др Боривоје Прокоповић, Ниш (Србија)

Др Тадеуш Грабински, Краков (Пољска)

Др Јанко Радуловић, Подгорица (Црна Гора) Др Паоло Цесар Чагас Родригес (Бразил)

Др Крис Пател, Сиднеј (Аустралија)

Академик Станислав Сергијович Јанецко, Кијев (Украјина)

Др Андреј Арјамов, Москва (Русија)

Др Ливију Думитраску, Плоешти (Румунија)

Др Срећко Милачић, Косовска Митровица (Србија)

Др Милан Амброж, Ново Место (Словенија)

Др Марко Колаковић, Загреб (Хрватска)

Др Дејан Јакшић, Суботица (Србија)

Др Дино Мартелато, Венеција (Италија)

Др Ајше Умит Гокдениз, Истанбул (Турска)

Др Иван Чарота, Минск (Белорусија)

Др Милица Вујичић, Нови Пазар (Србија)

Др Чи Веи Су, Кингдао, (Кина)

Др Чор Фон Танг, Пенанг (Малезија)

Др Драгутин Шипка, Бања Лука (Р. Српска)

Др Јасмина Старц, Ново Место (Словенија)

Др Марија Станкова, Благоевград, (Бугарска)

Др Андриела Витић-Цетковић, Котор (Црна Гора)

Др Bishwajit Bhattacharjee, Каримгањ (Индија)

Др Марко Јанковић, Београд (Србија)

ИЗДАВАЧКИ САВЕТ

Др Гордана Мрдак, Врање (Србија)

Др Душан Здравковић, Ниш(Србија)

Мр Бранислав Јованчић, Ниш (Србија)

Др Живорад Глигоријевић, Ниш (Србија)

Др Софија Лихова, Кијев (Украјина) Мсц Никола Ћурчић, Београд (Србија)

Др Рајко Буквић, Београд (Србија)

Др Александар Грубор, Суботица (Србија) Др Петар Веселиновић, Крагујевац (Србија) Др Иван Ђурић, Хале (Немачка)

Мр Наталиа Глаголева, Белгород (Русија)

Др Весна Јанковић-Милић, Ниш (Србија)

Др Бранко Михаиловић, Београд (Србија)

Др Братисалав Прокоповић, Лесковац (Србија)

Др Миријана Кнежевић, Крагујевац (Србија)

Др Александар Костић, Косовска Митровица (Србија)

Др Соња Јовановић, Ниш (Србија)

Др Данијела Деспотовић, Крагујевац (Србија)

- 1. Часопис "Економика" покренут је јула 1954. године и под називом "Нишки привредни гласник" излазио је до јуна 1957. године, а као "Привредни гласник" до краја 1969. године. Назив "Наука и пракса" носио је закључно са бројем 1/1973. год. када добија назив "Економика" који и данас има.
- 2. Часопис су покренули Друштво економиста Ниша и Друштво инжињера 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).

ЧАСОПИС ЈЕ ИНДЕКСИРАН У СЛЕДЕЋИМ БАЗАМА:

ERIH Plus RePEc DOAJ

Index Copernicus Ulrichs web SHERPA / ROMEO

EBSCO host EconPapers ProQuest
J-Gate CABI EZB
SSRN ECONLIT CNKI

Лектор за енглески језик

ВЛАДИМИР ИВАНОВИЋ

Компјутерска обрада текста и графике:

МИЛАН Д. РАНЪЕЛОВИЋ

Ликовна опрема:

ПЕТАР ОГЊАНОВИЋ, ДРАГАН МОМЧИЛОВИЋ

Алреса:

"Економика" Друштво економиста 18000 Ниш, Максима Горког 5/36

Телефон Редакције: +381 (0)18 4245 763; 211 443

е-маил: zoki@medianis.net; ekonomika@sbb.rs WEB: http://www.ekonomika.org.rs

Жиро рачун: динарски 160-19452-17

Штампа:

"GRAFIKA GALEB"

18000 Ниш

Тираж: 300 примерака

INTERNATIONAL JOURNAL

FOR ECONOMIC THEORY AND PRACTICE AND SOCIAL ISSUES



ЕКОНОМИКА

The Journal is issued four times a year.

Year LXII, VII-IX 2016, Vol. 3

PUBLISHER: Society of Economists "Ekonomika", Nis

COPUBLISHERS: Faculty of Economics - Pristina, Institute of agricultural economics - Belgrade, Faculty of business studies and righ - Belgrade, Faculty of management - Sremski Karlovci, Economic Association of Nis.

EDITOR-IN-CHIEF:

Prof. Dragoljub Simonovic, Ph.D

ASSISTANT EDITORS-IN-CHIEF:

Zoran Simonovic, Ph.D

EXECUTIVE EDITORS:

Prof. Bojan Krstic, Ph.D, Nis (Serbia)

Prof. Blagoje Paunovic, Ph.D, Belgrade (Serbia)

Prof. Slavomir Miletic, Ph.D, Pristina (Serbia)

Prof. Zivota Radosavljevic, Ph.D, Novi Sad (Serbia)

Prof. Jonel Subic Ph.D, Belgrade (Serbia)

Prof. Boban Stojanović, Ph.D, Nis (Serbia)

ASSOCIATE EDITORS

Prof. Snezana Djekic, Ph.D Nis (Serbia)

Prof. Dragan Momirovic, Ph.D, Beograd (Serbia)

Prof. Goran Kvrgic, Ph.D, Sremski Karlovci (Serbia)

Prof. Drago Cvijanovic, Ph.D. Vrnjačka Banja (Serbia)

Aleksandar Duric, Ph.D, Belgrade (Serbia)

EDITORIAL BOARD

Academician Zoran Lakic,Podgorica (Montenegro)

Academician Ljubisa Papic, Ph.D, Cacak (Serbia) Greg Ringer, Ph.D, Eugene, OR (USA)

Rajmund Mirdala, Ph.D, Kosice (Slovakia) Mariya Pavlova, Ph.D, Veliko Trnovo (Bulgaria)

Andrei Jean-Vasile, Ph.D, Ploiesti (Rumania)

Jurij Knjazev, Ph.D, Moskva (Russia) Mirko Savic, Ph.D, Subotica (Serbia)

Andrés Carrión García, Ph.D, Valencia (Spain) Renata Krakowska Ph.D, Warsaw (Poland)

Ljubinka Joksimovic, Ph.D, Beograd (Srbija)

Alexandru Nedelea, Ph.D, Suceva (Rumania) Nabieva U.N. Ph.D. Mahackala (Russia)

Nabieva U.N., Ph.D, Mahackala (Russia) Slobodan Cvetanovic, Ph.D, Nis (Serbia)

Chi Wei Su, Ph.D, Qingdao (China)

Zbigniew Paszek, Ph.D, Krakow (Poland)

Borivoje Prokopovic, Ph.D, Nis (Serbia) Tadeusz Grabinski, Ph.D, Krakow (Poland)

Tadeusz Grabinski, Ph.D, Krakow (Poland) Janko Radulovic PhD, Podgorica (Montenegro)

Paulo Cesar Chagas Rodrigues, Campus Avaré, (Brazil)

Academician Stanislav Sergijovic Jacenko Kijev (Ukraine)

Andrey Aryamov, Ph.D, Moskva (Russia) Liviu Dumitrascu, Ph.D, Ploiesti (Rumania)

Srecko Milacic, Ph.D, K.Mitrovica (Serbia)

Milan Ambrož Ph.D, Novo Mesto (Slovenia)

Marko Kolakovic, Zagreb (Croatia)

Dejan Jaksic, Ph.D, Subotica (Serbia) Dino Martello, Ph.D, Venice (Italy)

Dino Marteno, Ph.D., venice (Italy)

Ayşe Ümit Gökdeniz, Ph.D Istanbul (Turkey)

Ivan Carota, Ph.D, Minsk (Belarus)

Milica Vujicic, Ph.D, Novi Pazar (Serbia), Chor Foon Tang, Ph.D, Penang, (Malaysia)

Dragutin Sipka, Ph.D, Banja Luka (Republika Srpska)

Jasmina Starc, Ph.D, Novo Mesto (Slovenia)

Mariya Stankova Ph.D, Blagoevgrad, (Bulgaria)

Andriela Vitic-Cetkovic Ph.D, Kotor (Montenegro)

Chris Patel, Ph.D, Sydney (Australia)

Bishwajit Bhattacharjee Ph.D, Karimganj, (India)

Marko Jankovic, Ph.D, Beograd (Serbia)

PUBLISHING COUNCIL

Dusan Zdravkovic, Ph.D, Nis (Serbia)
Branislav Jovancic, MSc, Nis (Serbia)
Zivorad Gligorijevic, Ph.D, Nis (Serbia)
Sofja Lihova, Ph.D, Kiev (Ukraine)
Nikola Curcic, MSc, Beograd (Serbia)
Rajko Bukvic, Beograd (Serbia)
Sonja Jovanovic, Ph.D, Niš (Serbia)
Aleksandar Grubor, Ph.D, Subotica (Serbia)
Petar Veselinovic, Ph.D, Kragujevac (Serbia)

Ivan Djuric, Ph.D, Halle (Germany) Gordana Mrdak, Ph.D, Vranje (Serbia) Natalia Glagoleva, MSc, Belgorod (Russia) Vesna Jankovic-Milic, Ph.D, Niš (Serbia) Branko Mihailovic, Ph.D, Beograd (Serbia) Bratislav Prokopovic, Ph.D, Leskovac (Serbia) Mirjana Knezevic, Ph.D, Kragujevac (Serbia) Aleksandar Kostic, Ph.D, K. Mitrovica (Serbia) Danijela Despotovic, Ph.D, Kragujevac (Serbia)

- 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 remaind 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.
- 5. EDITORS: dr Jovan Petrovic (1954-1958). Miodrag Filipovic (1958-1962), Blagoje Matic (1962-1964), dr Dragoljub Stojiljkovic (1964-1967), dr Miodrag Nikolic (1967-1973), dr Dragoljub Simonovic (1973-1984), dr Miodrag Jovanovic (1984-3-4/1988) i dr Dragoljub Simonovic (1990-till the present day).

THE JOURNAL IS INDEXED IN THE FOLLOWING BASES:

ERIH Plus RePEc DOAJ

Index Copernicus Ulrichs web SHERPA / ROMEO

EBSCO host EconPapers ProQuest
J-Gate CABI EZB
SSRN ECONLIT CNKI

Lector

VLADIMIR IVANOVIĆ

Prepress:

MILAN D. RANDJELOVIĆ

Cover:

PETAR OGNJANOVIĆ, DRAGAN MOMČILOVIĆ

Address:

"EKONOMIKA", Society of Economists 18000 Nis, Maksima Gorkog 5/36

Phone: +381 (0)18 4245 763; 211 443

e-mail: zoki@medianis.net; ekonomika@sbb.rs WEB: http://www.ekonomika.org.rs

Bank Account: 160-19452-17

Printed by:

"GRAFIKA GALEB"

18000 Niš Copies: 300

МЕЖДУНАРОДНИИ ЖУРНАЛ

ПО ЭКОНОМИЧЕСКОЙ ТЕОРИИ И ПРАКТИКЕИ ОБЩЕСТВЕННЫМ ВОПРОСАМ FKOHO

Журнал излается четыре раз в голу.

ИЗДАТЕЛ: Общество экономистов "Экономика" Ниша.

СУИЗЛАТЕЛИ: Экономический факультете в Приштине. Институт экономики сельского хозяйства в Белград, Факултет за пословне студије и право - Београд, Факультет управления - Сремски Карловци, Ассоциация экономистов Ниша.

ГЛАВНЫЙ И ОТВЕТСТВЕННЫЙ РЕДАКТОР

Проф. д.н. Драголюб Симонович

ЗАМЕСТИТЕЛЬ ПОМОШНИК ГЛАВНОГО И ОТВЕТСТВЕННОГО РЕЛАКТОРА

Д.н. Зоран Симонович

ИСПОЛНИТЕЛЬНЫЕ РЕДАКТОРЫ

Проф. д.н. Бойан Крстич, Ниш (Сербия) Проф.д.н. Благойе Паунович, Белград (Сербия) Проф. д.н. Славомир Милетич, Приштина (Сербия) Проф. д.н. Живота Радосавляевич, Белград (Сербия) Проф. д.н. Йонел Субич, Белград (Сербия)

Проф. д.н. Бобан Стојанович, Ниш (Сербия)

РЕДАКТОРЫ ПЕРСОНАЛ

Проф. д.н.Снежана Джекич, Ниш (Сербия) Проф. д.н. Драган Момирович, Белград (Сербия) Проф.д.н. Горан Квргич, С. Карловци (Сербия)

Проф. д.н. Драго Цвийанович, Врнячка Баня (Сербия) Д.н. Александр Джурич, Белград (Сербия)

РЕДАКЦИОННАЯ КОЛЛЕГИЯ

Академик Зоран Лакич, Подгорица (Черногория) Академик Любиша Папич, Чачак (Сербия)

д.н. Раймунд Мирдала, Кошице (Словакия)

д.н. Грег Рингер, Јуџин (США)

д.н. Мария Павлова, Велико Тырново (Болгария)

д.н. Андрей Жан-Васильев, Плоешти (Румыния)

д.н. Юурий Князев, Москва (Россия)

д.н. Мирко Савич, Суботица (Сербия)

д.н. Андрес Карион Гарциа, Валенсия, (Испания)

д.н. Рената Краковска, Варшава (Польша)

д.н. Любинка Йокисимович, Белград (Сербия)

д.н. Алехандру Неделеа, Сучева (Румыния)

д.н. Набиева У.Н., Махачкала (Россия)

д.н. Слободан Цветанович, Ниш (Сербия)

д.н. Збигниев Пашек, Краков (Польша)

д.н. Боривойе Прокопович, Ниш (Сербия)

д.н. Тадеуш Грабински, Краков (Польша)

д.н. Јанко Радулович, Подгорица (Чернагория) д.н. Паоло Цесар Чагас Родригес (Бразилия)

д.н. Крис Пател, Сиднеј (Австралия)

Академик Сташслав Ссрпйович Яценко, Киев (Украина)

д.н. Андрей Арямов, Москва (Россия)

д.н. Ливиу Думитрасцу, Плоешти (Романия)

д.н. Сречко Милачич, Косовска Митровица (Сербия)

д.н. Милан Амброж, Ново Место (Словения)

д.н. Марко Колакович, Загреб, (Хорватия)

д.н. Дейан Јакшич, Суботица (Сербия)

д.н. Дино Мартелато, Венеция (Италия)

д.н. Ајше Умит Гокдениз, Станбул (Турция)

д.н. Иван Чарота, Минск (Беларусь)

д.н. Милица Вуйчич, Нови Пазар (Сербия)

л.н. Чи Веи Су, Кинглао, (Китай)

д.н. Чор Фон Танг, Пенанг (Малайзия)

д.н. Драгутин Шипка, Бања Лука (Р. Сербскай)

д.н. Јасмина Старц, Ново Место (Словения)

д.н. Мария Станкова, Благоевград, (Болгария)

д.н. Андриела Витич-Цеткович, Котор (Чернагория)

д.н. Bishwajit Bhattacharjee, Каримгањ (Индия)

д.н. Марко Јанкович, Белград (Сербия)

СОВЕТ ИЗЛАТЕЛЕЙ

д.н. Гордана Мрдак, Врање (Сербия)

д.н. Душан Здравкович, Ниш(Сербия) к.н. Бранислав Йованчич Ниш(Сербя)

д.н. Живорад Глигоријевич, Ниш (Сербия)

д.н Софија Лихова, Кијев (Украина)

д.н. Никола Чурчич, Београд (Сербия)

д.н. Рајко Буквич, Белград (Сербия)

д.н. Александар Грубор, Суботица (Сербия)

д.н. Петар Веселинович. Крагујевац (Сербия)

д.н. Иван Джурич, Хале, (Германия)

к.н. Наталиа Глаголева, Белгород (Россия)

д.н. Весна Јанкович-Милич, Ниш (Сербия)

д.н. Бранко Михаилович, Белград (Сербия)

д.н. Братисалав Прокопович, Лесковац (Сербия)

д.н Миријана Кнежевич, Крагујевац (Сербия)

д.н. Александар Костич, Косовска Митровица (Сербия)

д.н. Соња Јованович, Ниш (Сербия)

д.н. Данијела Деспотович, Крагујевац (Сербия)

- 1. Журнал "Экономика" начал издаваться с июля 1954 года и под названием "Нишский хозяйственный вестник" выходил до июня 1957 года, а как "Хозяйственный вестник" до конца 1969 года. Название "Наука и практика" носил заключительно с № 1/1973 г., когда и получил название "Экономика", которое имеет и сейчас.
- 2. Журнал основали Общество экономистов Ниша и Общество инженеров и техников Ниша (оставались издавателями до конца 1964 года). Объединение бухгалтеров становится издателем начиная с № 6 7 / 1958 года. Экономический факультет в Нише на основании своего Решения № 04 2021 от 26.12.1991 года стал соиздателем "Экономики". Также и Экономический факультет в Приштине стал соиздателем с 1992 года. Начиная с 1992 года соиздателем "Экономики" становится Общество маркетинга региона г. Ниша. Как соиздатели "Экономики" в течении 1990 1996 года фигурировали Фонд по научным работам, опщины Ниш, Институт урбанистического планирования Ниша и Корпорация Winner Broker Ниш.
- 3. Республиканский секретариат по информации СР Сербии своим Решением №651¬126/73-02 от 27 ноября 1974 года принял заявление "Экономики" о входе в состав Регистра газет. Собрание Общества экономистов г. Ниша на заседании от 24 апреля 1990 г. Уставным решением подтвердил, что "Экономика" имеет статус правового лица. На заседании Собра-ниея Общества экономистов г. Ниша от 11 ноября 1999 г. принято решение об открытии "Экономикой,, отдельного расчетного счета.
- 4. Согласно мнению Республиканского секретариата по культуре СР Сербии №413¬516/73-02 от июля 1973 г. и Министерства науки и технологии Республики Сербии №541¬03-363/94-02 от 30 июня 1994 г. "Экономика" имеет статус научного и ранг национального журнала. С начала 1995 года "Экономика" получила статус международного экономического журнала.
- 5. СОСТАВИТЕЛИ: д.н. Йован Петрович (1954-1956), Миодраг Филиппович (1958—1962), Благое Митич (1962-1964), д.н. Драголюб Стойилькович (1964-67), д.н. Миодраг Николич (1967-1973), д.н. Драголюб Симонович (1973-1984), д.н. Миодраг Йованович (1984 3-4/1988) и д.н. Драголюб Симонович (1990 и в настоящее время).

ЖУРНАЛ ИНДЕКСИРУЕТСЯ В СЛЕДУЮЩИХ ОСНОВАНИЙ:

ERIH Plus RePEc DOAJ

Index Copernicus Ulrichs web SHERPA / ROMEO

EBSCO host EconPapers ProQuest
J-Gate CABI EZB
SSRN ECONLIT CNKI

Английский редактор ВЛАДИМИР ИВАНОВИЋ

Компьютерная обработка текста и графика:

МИЛАН Д. РАНЪЕЛОВИЋ

Худ.оформление:

ПЕТАР ОГНЯНОВИЧ, ДРАГАН МОМЧИЛОВИЧ

Адрес:

"Економика" 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

Расчотный счет: 160-19452-17

Печать:

"GRAFIKA GALEB"

18000 Ниш Тираж: 300

CAДРЖАЈ / CONTENT

ОРИГИНАЛНИ НАУЧНИ РАДОВИ / ORIGINAL SCIENTIFIC ARTICLE

Jasmina Bogićević, Violeta Domanović, Bojan Krstić	
THE ROLE OF FINANCIAL AND NON-FINANCIAL PERFORMANCE	
INDICATORS IN ENTERPRISE SUSTAINABILITY EVALUATION	1
УЛОГА ФИНАНСИЈСКИХ И НЕФИНАНСИЈСКИХ ИНДИКАТОРА	
ПЕРФОРМАНСИ У ОЦЕНИ ОДРЖИВОСТИ ПРЕДУЗЕЋА	1
Rajko M. Bukvić	
REPUBLIC OF ADYGEA – SMALL AND BEAUTIFUL	15
РЕПУБЛИКА АДИГЕЈА – МАЛА И ЛЕПА	15
Borivoje B. Prokopović, Bratislav B. Prokopović, Živojin B. Prokopović	
QUESTION ABOVE ALL QUESTIONS FOR SERBIA IN 2016 IS THE	25
REFORM OF THE STATE-OWNED ENTERPRISES	35
ПИТАЊЕ СВИХ ПИТАЊА ЗА СРБИЈУ У 2016. ГОДИНИ ЈЕ РЕФОРМА	36
ПРЕДУЗЕЋА У ДРЖАВНОМ ВЛАСНИШТВУ	30
ПРЕГЛЕДНИ ЧЛАНЦИ / SCIENTIFIC REVIEW ARTICLE	
Djurdjica Vukajlović, Miodrag Brzaković, Nikola Ćurčić	
ASSESSMENT OF EMPLOYEES COMPETENCES CARRIED OUT BY	
DIFFERENT MANAGEMENT LEVELS	47
ОЦЕНА КОМПЕТЕНЦИ ЗАПОСЛЕНИХ ОД СТРАНЕ РАЗЛИЧИТИХ	
МЕНАЏМЕНТ НИВОА	47
Marina Đorđević, Dušan Perović	
CRISIS IMPACT ON CHANGES IN IMPLEMENTING MONETARY	
POLICY OF CENTRAL BANKS	57
УТИЦАЈ КРИЗЕ НА ПРОМЕНЕ У НАЧИНУ ВОЂЕЊА МОНЕТАРНЕ	
ПОЛИТИКЕ ЦЕНТРАЛНИХ БАНАКА	57
Mirjana Bojcevski, Vlado Kovacevic, Jonel Subic	
ROLL OF A FARM ACCOUNTANCY DATA NETWORKS (FADN) IN	
AGRICULTURAL SECTOR IN SERBIA	69

ULOGA SISTEMA RAČUNOVODSTVENIH PODATAKA NA POLJOPRIVREDNIM GAZDINSTVIMA (FADN) U POLJOPRIVREDNOM SEKTORU SRBIJE	69
Sveto Purić, Savić Božić Dijana	
DIVISION OF THE COURTS IN BOSNIA AND HERZEGOVINA AND EFFICIENCY OF THE COURTS	79
РАСПОРЕД СУДОВА У БОСНИ И ХЕРЦЕГОВИНИ И ЕФИКАСНОСТ СУДОВА	79
Slavica Jovetić, Jelena Purić	
COMPARATIVE ANALYSIS OF FINANCIAL AND NON-FINANCIAL PERFORMANCE ELEMENTS OF JOINT-STOCK COMPANIES	93
УПОРЕДНА АНАЛИЗА ФИНАНСИЈСКИХ И НЕФИНАНСИЈСКИХ ПЕРФОРМАНСИ АКЦИОНАРСКИХ ДРУШТАВА	94
Milan Stamatović, Snežana Maksimović, Aleksandra Tornjanski	
THE COMPARISON BETWEEN PUBLIC AND PRIVATE SECTOR	
EFFICIENCY – ARE THE BUREAUCRATIC PROCEDURES THE SOURCE OF INEFFICIENCY?	111
POREĐENJE EFIKASNOSTI JAVNOG I PRIVATNOG SEKTORA- DA	111
LI SU BIROKRATSKE PROCEDURE IZVOR NEEFIKASNOSTI ?	112
Živojin B. Prokopović, Tijana B. Prokopović, Maja Lj. Arsić-Trajković TRACING OF BALANCING EXPRESSION OF RESULTS	
OF SUSTAINABLE DEVELOPMENT	123
ПРАЋЕЊЕ И БИЛАНСНО ИСКАЗИВАЊЕ РЕЗУЛТАТА ОДРЖИВОГ РАЗВОЈА	100
IASBOJA	123
Nevena Krasulja, Milica Vasiljevic Blagojevic, Ivana Radojevic	
BRAIN-DRAIN –THE POSITIVE AND NEGATIVE ASPECTS OF THE PHENOMENON	131
ОДЛИВ МОЗГОВА – ПОЗИТИВНИ И НЕГАТИВНИ АСПЕКТИ	121
ФЕНОМЕНА	131
Jelena V. Gluščević, Andrija Đ. Đurović	
ASSET MANAGEMENT CRIMINAL ORIGIN AND MAIN CAUSES	1.40
INSUFFICIENT EFFICIENCY MANAGEMENT SYSTEM	143

	УПРАВЉАЊЕ ИМОВИНОМ КРИМИНАЛНОГ ПОРЕКЛА И	
	ГЛАВНИ УЗРОЧНИЦИ НЕДОВОЉНЕ ЕФИКАСНОСТИ СИСТЕМА	
	УПРАВЉАЊА	143
Ja	smina Ognjanović	
	INTELLECTUAL CAPITAL: CHARACTERISTICS AND SIGNIFICANCE	
	IN THE SERVICE SECTOR	159
	ИНТЕЛЕКТУАЛНИ КАПИТАЛ: КАРАКТЕРИСТИКЕ И ЗНАЧАЈ У	
	УСЛУЖНОМ СЕКТОРУ	159

Jasmina Bogićević¹
Violeta Domanović²
University of Kragujevac,
Faculty of Economics
Bojan Krstić³
University of Niš,
Faculty of Economics

ORIGINAL SCIENTIFIC ARTICLE doi:10.5937/ekonomika1603001B Received: Jun 28, 2016 Accepted: August 23, 2016

THE ROLE OF FINANCIAL AND NON-FINANCIAL PERFORMANCE INDICATORS IN ENTERPRISE SUSTAINABILITY EVALUATION

Abstract

Valid analysis and assessment of the sustainability of the company are based on adequate and reliable information spectrum. Therefore, emphasis should be placed on the selection criteria for assessing the sustainability. In this context, it must be decided whether the assessment of the sustainability should be based solely on financial reporting figures that reflect its financial position or it is necessary to use other parameters. For this reason, in recent years it is highlighted the necessity of an integrated reporting model for assessing the sustainability. Such an approach means taking into account not only financial criteria but also criteria that reflect both internal and external environment. The purpose of the research is to highlight the role of integrated information spectrum for the purposes of assessing the sustainability. In this regard, the paper analyzes the different models for assessing the sustainability in the EU and is considering the possibility of their use in enterprises in the Republic of Serbia.

Key words: integrated reporting model, sustainability, financial measures and non-financial measures.

JEL classification: M21, M41.

УЛОГА ФИНАНСИЈСКИХ И НЕФИНАНСИЈСКИХ ИНДИКАТОРА ПЕРФОРМАНСИ У ОЦЕНИ ОДРЖИВОСТИ ПРЕДУЗЕЋА

Апстракт

Валидна анализа и оцена одрживости предузећа се заснивају на адекватном и поузданом информационом спектру. Стога, акценат треба ставити на избор мерила за оцену одрживости предузећа. У том контексту, треба

¹ jasminabogic@ptt.rs.

² violeta.domanovic@gmail.com

³ bojan.krstic@eknfak.ni.ac.rs

донети одлуку да ли оцену одрживости предузећа засновати искључиво на финансијско-извештајним бројкама које рефлектују његов финансијски и приносни положај или је неопходно да се за те потребе користе и други параметри. Из тог разлога се у последње време истиче неопходност примене интегралног модела извештавања за оцену одрживости предузећа. Такав приступ оцени одрживости предузећа подразумева узимање у обзир не само финансијских мерила, већ и мерила која одражавају како интерно, тако и екстерно окружење. Сврха истраживања је истицање улоге интегралног информационог спектра за потребе оцене одрживости предузећа. С тим у вези, у раду се анализирају различити модели за оцену одрживости предузећа у Европској унији и разматра могућност њихове примене у предузећима у Републици Србији.

Кључне речи: модел интегрисаног извештавања, одрживост предузећа, финансијска мерила и нефинансијска мерила.

Introduction

Conventional accounting model, especially its financial reporting segment, cannot provide adequate answers to numerous questions coming from various stakeholders. Traditional accounting framework does not fully meet the requirements of managers, investors, and creditors for identifying and monitoring the company performance. Therefore, academic and professional communities point to the need for basing the evaluation of company performance not only on financial, but also on non-financial information.

Davis and Albright (2004) argue that the application of performance measurement system is often recommended in order to improve strategy implementation and to increase organizational performance. Contemporary performance measurement models imply the use of both financial and non-financial criteria in line with the business strategy (Krstić & Sekulić, 2013). Balanced scorecards (BSC) and multi-criteria key performance indicators (KPI) are usually distinguished as examples of contemporary models (Krstić, 2012). The adoption of such systems has been growing steadily over the last two decades. Companies are increasingly under pressure to deliver value not only to shareholders, but also to other stakeholders, and are increasingly convinced that contemporary performance measurement models can be of help in the realization of this task (Ittner et al., 2003). Researchers in this field are aware why companies adopt these systems.

The research subject is company performance evaluation, with special emphasis on evaluating the performance of companies in the European Union and the Republic of Serbia. The aim of the research is to gain insight into the prevalence of different models and criteria for evaluating the company performance in the European Union and the Republic of Serbia. The starting hypothesis is that companies in the European Union use contemporary integrated models for evaluating the company performance, unlike companies in Serbia, which still base company performance evaluation on traditional

ЕКОНОМИКА ЭС

2

financial measures. In order to test the starting hypothesis, qualitative methodology will be used, based on the study and a descriptive analysis of the research problem, while, based on empirical studies by various authors in the field of accounting and business economics and management, the aggregation of different positions will be carried out, through the method of synthesis and deduction. For comparative analysis of models for evaluating the company performance in the European Union and the Republic of Serbia, comparative research method is applied.

Starting from the defined subject, aim, and the starting hypothesis, the paper will first point out the possibilities and limitations of financial performance measures; then, the focus will be on the role of integrated reporting model in the evaluation of company performance; the following part will deal with the implementation of integrated reporting model in the process of evaluation of company performance in the European Union, whereas the final part will analyze the implementation of various performance measures in companies in the Republic of Serbia.

Financial performance indicators for sustainability evaluation

Accounting plays a key role in evaluating the company performance primarily through the preparation and presentation of a set of financial statements. As a kind of reporter and editor of the business life of companies, accounting aims at using these final products to provide information to the right users, in the right quantity (multum non multa), in a timely manner, in an appropriate form, and at an acceptable cost. Since financial statements give both quantitative and qualitative data, authors often emphasize their completeness (Kothari & Barone, 2006). However, financial statements can serve "not only as a map, but a maze" to their users (Fraser & Ormiston, 2013). As a map, financial statements are an adequate basis for understanding the financial position of a company and for evaluating its past and expected success. Therefore, it is no wonder that primacy within the first module of Sustainability Evaluation and Reporting System (SERS) belongs to information in the statement of financial position (balance sheet), income statement, and cash flow statement. The significance of these navigational accounting instruments is reflected in the fact that the analytical interpretation of the data contained therein enables the identification and monitoring of key financial performance indicators of the company.

The relevant literature in the field of business economics, management, and accounting provides no single definition of the syntagm "financial performance". There being no generally accepted definition, different views of this important aspect of the general economic position of the company have appeared in theory and practice, which can be systematized into two groups, namely:

- a. Financial performance in the narrow sense and
- b. Financial performance in a broader sense.

According to a narrow concept, evaluation of financial performance of the company is based solely on parameters that directly reflect the company results. Accordingly, evaluation of performance in the narrow sense relies solely on profitability indicators. This belief is held by Peterson-Drake and Fabozzi (12), who use return on investment

(ROI) as the most representative indicator of financial performance. Depending on the type of investment, these authors alternatively observe this measure of performance. In this regard, they point out that summary of ROI includes rate of return on assets (ROA) and return on equity (ROE). Narrow understanding of financial performance is also held by Fraser and Ormiston (2013), who, as the key criteria of profitability, in addition to the above, point to the rate of operating income and rate of net income. Pointing out that financial performance measures are indicators identified on the basis of accounting data, Doupnik and Perera (2007) suggest the following criteria: growth in operating income, cost reduction, profit, and return on investment. As the primary advantage of profit, as the most relevant performance measure, these authors point out that profit numerically summarizes activities of all business functions. Therefore, it is no wonder that the most common measures of financial performance in the narrow sense are based on profit. In this regard, Earnings before Interest and Taxes (EBIT) and Earnings before Interest, Taxes, Depreciation, and Amortization (EBITDA) have started being used as parameters.

According to a broader understanding of financial performance, evaluation of this complex category should rely on criteria determined on the basis of information contained in financial statements, as well as other relevant accounting information. In this context, when evaluating financial performance, the majority of authors use not only various profitability indicators, but also indicators of liquidity, solvency, and activity. Some of the proponents of broader understanding of financial performance are Cotter (2012), Davies and Pain (2002), White, Sondhi, and Fried (1993). Moreover, some authors see market share (Chen et al., 2009) as financial performance indicators, which *de facto* stand for indicators of growth and competitiveness (Kotane & Kuzmina-Merlino).

On the whole, regardless of whether financial performance is treated in the narrow or broad sense, the main sources used for its evaluation are provided by data in the statement of financial position, income statement, and cash flow statement. In fact, even the authors who advocate a narrower concept of financial performance take information from both income statement and statement of financial position for the assessment of global profitability indicators. In other words, they believe that information about profitability flow gains in importance only when brought in line with the engaged resources. Proponents of a broader concept of financial performance in particular point to the fact that, in the process of evaluation, basic financial statements cannot be treated as alternative, but as complementary information sources. Pointing to the unbreakable bonds between statement of financial position and income statement, they rightly state that financial performance indicators (partial indicators of profitability), determined solely on the basis of income statement, are per se irrelevant if not accompanied by indicators identified on the basis of balance sheet and cash flow statement (indicators of liquidity, solvency, and partly activity). Even the analysis of liquidity, based on data in the balance sheet, can only provide certain incomplete signs of actual liquidity, which is why this analytical approach is used only as an initial provisional process of meticulous analysis. Therefore, static liquidity ratios are often supplemented by the analysis of cash flows that represent the company bloodstream, and cash flows from operations are qualified as the key performance measure (Grant, 2002). In this context, operating cash flow liquidity ratio is a particularly important indicator of financial performance.

Cash flows from operating activities can be a critical measure of business success. As pointed out by Fraser and Ormiston (2013), "the amount of net income in the income

ЕКОНОМИКА ЭС

4

statement is ultimately irrelevant if the company is unable to translate its gains into cash". Cash flows generated during the accounting period are facts, not dependent on evaluation or use of alternative accounting conventions and valuation methods. In other words, all cash flow statement items are based on money and are easy to measure. Emphasizing the comparative advantages of this financial statement, Davies and Pain (2002) point out that "unacceptable degree of subjectivity that comes to the fore in the preparation of income statement, thus in some way discrediting this statement, contributes to the popularity of the cash flow statement".

Despite the indisputable possibilities offered by financial criteria, it is necessary to point out their deficiencies and incompleteness for the purposes of evaluating the company performance. First of all, the financial statements are a retrospective reflection of the business and financial life of the company on a particular day or over a particular period, and, as such, allow for the identification of historically oriented financial performance measures of the company. As already stated, beside map, financial statements may be a maze that brings into question how to understand ability of their content. Therefore, plenty of information contained in the financial statements "may seem confusing and disorienting" (Davis & Albright, 2004), thus bringing into question the reliability of its use. The complexities of accounting rules, which are often subject to change, as well as the managers' discretion to numerically design financial statements, represent the kind of problem when evaluating the company performance. Moreover, according to Fraser and Ormiston (2013), "some of the key information needed for evaluating the company performance is not available in financial statements, some is hard to find, and many is impossible to measure". Therefore, it is no wonder that in recent years focus has been on the necessity of using non-financial criteria for the purposes of evaluating the company performance.

The use of integrated reporting in sustainability evaluation

Lately, there have been more and more indications of the mismatch of content found in financial statements of companies and information required by their key stakeholders for the purpose of evaluating performance. In fact, the focus has been on the fact that evaluation of company performance should be based on a holistic, i.e. integrated approach, which involves the simultaneous use of financial and non-financial measures. It is this integrated reporting paradigm that fully reflects the context in which the company operates (Krstić & Bonić, 2013).

The ultimate goal of the company can be easily qualified as the value creation (Jensen, 2001; Grant, 2002). In order to reach the stated goal, companies should not ignore the context within which they realize their activities. The prevailing view in literature is that this context should be seen as a network of relations between the company and a large number of its stakeholders. In other words, relations between the company and its key stakeholders determine its potential for sustained and continuous operations (Perrini & Tencati, 206). Given that a complete set of relationships with stakeholders has strategic importance for the long-term success and survival of the company, Perrini and Tencati (2006) claim that measuring the success of a corporation should not be limited solely to value creation for one interest group, i.e. shareholders. Taking into account the needs of

other stakeholders (employees, clients, suppliers, financial partners, government, local community, and society in general) in evaluating the company performance results in the adoption of a holistic and integrated framework. It is an extremely flexible framework that extends and enhances traditional financial and economic approaches to performance measurement, which is modelled primarily in accordance with the needs and demands of stakeholders.

Although the idea of redesigning the performance evaluation framework appeared in the United States at the end of the twentieth century, it is still supported by outstanding international and European institutions. These institutions have also contributed to the development of an integrated reporting model and the definition of key performance indicators. Among them, special importance belongs to a non-profit organization, Global Reporting Initiative (GRI), which has created a reporting framework and a set of indicators that relate to the issues of environmental protection, society, and economy. It is believed that Sustainability Reporting Guidelines developed by GRI are the most common non-financial reporting framework used in practice. Furthermore, GRI has already four times updated Sustainability Reporting Guidelines. According to the latest version (G4), the framework provides guidance to all world organizations, regardless of their size, in relation to the reporting forms, fields that should be disclosed and key performance indicators. It is, therefore, no wonder that this integrated reporting framework is widely used around the world. Although GRI's intention was to make these guidelines facilitate the standardization of company reporting process, they are sometimes differently interpreted and applied in practice. United Nations Conference of Trade and Development (UNCTAD) contributed to the affirmation of non-financial performance indicators when it adopted the 2008 Corporate Responsibility Guidelines, stating indicators on the protection of the environment, society, and corporate governance. A similar set of non-financial criteria was in the same period suggested by the Chartered Financial Analyst Institute (CFA Institute) and the European Federation of Financial Analyst Societies (EFFAS). In addition to these institutions, strong contribution to the affirmation of non-financial performance measures was given by the International Federation of Accountants (IFAC) in 2011, which insisted that the key performance measures are those relating to the protection of the environment, society, and governance. On 29 September 2014, Council of the European Union adopted a new Directive 2014/95/ EU relating to the disclosure of non-financial and variety of information at the level of large companies and groups. The Directive entered into force on 6 December 2014, and represents a kind of supplement to the Directive 2013/34/EU, which refers to the annual individual and consolidated financial statements.

An important role in the development of efficient and effective methodology for comprehensive evaluation of the company sustainability has been given to the academic community. An illustrative example of this contribution can be Sustainability Evaluation and Reporting System (SERS), derived from theoretical analyses and empirical research conducted by Italian authors Perrini and Tencati (2006). This system includes the following three modules: (1) integrated reporting system, (2) integrated information system, and (3) key performance indicators of company sustainability (Perrini & Tencati, 2006). In contrast to the second and the third model, which are one-dimensionally presented, the first module, called an integrated reporting system, includes: annual report, social report, environmental report, and a set of integrated performance indicators. As the annual

ЕКОНОМИКА ЭС

6

report was already considered in the context of financial performance, the following part will discuss the social report and the environmental report.

The focus of the social dimension of corporate sustainability is on the impact of the organization on social systems within which it operates (Krstić & Ivanović, 2014). Social report contains information on the impact of the company and its activities on various interest groups. In the selection of social performance indicators, it is necessary to determine the standards or guidelines dealing with social issues. Social issues are at the core of modern concepts of Corporate Social Responsibility (CSR), Social Accountability 8000, and Socially Responsible Investing. Social report allows management decision-making and corporate communications. It includes ethics policy, a report on the added value, and analysis of relationships between stakeholders. Social performance is focused on working practices, human rights, and broader social issues that tackle a wide range of stakeholders (Hřebíček et al., 2012). The second part of the social report is a report on the added value, which is the traditional instrument of social reporting and also the link between traditional financial accounting and social reporting. It measures the financially expressed value added that the company creates and distributes to a variety of stakeholders. Analysis of the relationship between interest groups on the basis of qualitative and quantitative information is intended to evaluate the sustainability of the company interaction with its constituents (Krstić et al., 2012).

Environmental indicators relate to the impact which the organization, through its products, services, and activities, exerts on the environment (Krstić et al., 2013). The company uses environmental indicators to control activities and to communicate with stakeholders that are particularly interested in environmental issues. Although there is no single model of this report, this reporting segment of SERS should contain two important flows of information: flow relating to physical data – accounting of energy and materials and flow relating to financial items -monetary environmental accounting. While accounting of energy and materials collects information on the impact of company activities on the environment, monetary accounting determines the costs and benefits arising from the environmental management of products and processes (Perrini & Tencati, 2006). A relevant segment of the first SERS module represents a set of integrated performance indicators associating physical and technical quantities with financial values, thus providing a number of user groups with complete insight into corporate activities and behaviour. An integrated information system is the core of the process of evaluation and reporting on the company performance (Perrini & Tencati, 2006). Based on modern information and communication technology achievements, this module allows the collection, processing, and distribution of physical/technical and financial data. It is this element that represents the starting level for the introduction of the accounting systems pertaining to the environment and society in order to integrate and improve the existing methodologies of financial accounting and cost accounting. Finally, the last module, called Key Performance Indicators, is a crucial element of SERS methodology (Perrini & Tencati, 2006). Due to lack of time and resources, small and medium-sized enterprises are unable to determine the complicated system of reporting on sustainability. Since they also need a map for continuous evaluation of performance and quality of relations with stakeholders, this group of companies uses key performance indicators as a sort of roadmap for these purposes.

It is evident that the previously discussed SERS methodology enables the company to manage relationships with stakeholders, to respond to their information requests, and to deal with economic, social, and environmental issues.

Comparative analysis of the evaluation of company performance in the countries of the European Union and the Republic of Serbia

In the European Union countries, the annual report consists of financial statements and voluntary notes, as well as a document that is referred to as management commentary or management discussion and analysis, containing specific non-financial information related to a particular company. Bini and Danielli (2011) discuss the role of the European Directive 2003/51, which requires managers to present a set of ratios to highlight the financial performance, namely return on equity (ROE), return on investment (ROI), and return on sales (ROS). The authors analyze the report in four European Union countries (Germany, Italy, United Kingdom, and the Netherlands), respecting differences in cultural, economic, financial, and regulatory environment. They propose an integrated approach to the analysis and evaluation of the quality of the presentation of financial and non-financial information. They point out the results of research on the relationship between voluntary disclosure of financial ratios and corporate characteristics in the period 1989-1993, based on a sample of 313 large companies in the United Kingdom. Their focus is on investment ratios, debt ratios, and profitability ratios as the financial criteria. They point out that financial ratios vary from company to company and that the nature of the industry, company performance, and size are factors that influence the policy of disclosure of financial ratios. Black Sun compared the disclosure practice of 100 companies in 2005 and 2006, and concluded that 79% of reports in 2006 contained financial key performance indicators (FKPI), compared to 2005 when 56% of such reports were recorded (Bini & Danielli, 2011). Deloitte conducted an annual survey on a sample of 130 companies whose shares are quoted on the London Stock Exchange. The study showed an increase in the number of financial key performance indicators from four to five between 2008 and 2009 (Bini & Danielli, 2011). Similar situation was with companies in Italy. The Scandinavian countries disclose more financial indicators than companies in the United Kingdom.

According to German Accounting Standards (GAS) of January 2010, the managers' report should contain the following parts (Bini & Danielli, 2011): description of the business environment, information about the profits, financial position of the company, assets and liabilities, report on events after the balance sheet date, report on the risk, as well the report on the expected growth. Out of financial criteria, according to the above-mentioned standards, net income, return on assets, leverage, profitability, market ratios, debt ratios, and liquidity ratios are applied. Out of non-financial criteria, environmental indicators and indicators that apply to employees are applied (water and energy consumption, carbon emissions, employee training, and employee participation in the distribution of profits, etc.), as well as indicators relating to customers.

In the United Kingdom, companies must prepare the Strategic Report. Strategic Report must include, among other things, description of the main risks and uncertainties which the company is facing, and analysis of relevant environmental issues and issues relating to employees on the basis of key performance indicators. In addition, Strategic Report must include information on environmental policy, employee issues, social issues, community issues, and human rights. The new Directive introduces the obligation for companies to publish the results of existing anti-corruption policies and results. In the United Kingdom, Strategic Report should contain information that is beneficial to

ЕКОНОМИКА ЭС

shareholders. The main purpose of the Report is to provide information to shareholders so that they could evaluate the directors' performance in the process of realization of company success, and to evaluate their achievements and anticipate the same in the future.

Member countries of the European Union, such as Austria, Belgium, Denmark, Finland, Germany, the Netherlands, and Sweden, formally refer to the Global Reporting Initiative in their documents or policies. In Sweden, for example, state-owned enterprises must prepare a sustainability report in accordance with the guidelines of the Global Reporting Initiative. The EU member states have two years to incorporate the Directive 2014/95/EU into their national legislation. In this regard, the European Commission organizes informal workshops on this topic in order to help governments of individual countries. The first workshop of that kind was held in Brussels on 24 March 2015. It turned out to be a useful forum for the exchange of experience among the EU member states and discussion of practical implementation issues. A large number of EU member states have already begun the process of incorporation of the Directive into their legislation, and have specific implementation plans, while some countries are already at an advanced stage.

Perrini and Tencati (2006) point out that the balanced scorecard model, GRI Sustainability Reporting Guidelines, and Sustainability Integrated Guidelines for Management are not entirely suitable for small and medium-sized enterprises due to their complexity, limited flexibility, and formal procedures. The authors introduce an efficient and effective methodology for an integrated evaluation of company sustainability in order to support new reporting models (with a special focus on small and medium-sized enterprises), with the purpose of integration of financial and non-financial performance measures, improving the quality of decision-making processes and management, and strengthening corporate accountability and responsiveness to various stakeholders.

Kotane and Kuzmina-Merlino (2012) point out that companies in Latvia apply current liquidity ratio, debt-to-equity ratio, gross profit, return on assets (ROA), and return on equity (ROE) in the process of financial analysis.

Significant dimension of company performance evaluation is the evaluation of corporate social responsibility (CSR). The corporate social responsibility index measures the corporate social responsibility practices in the broadest sense, includes reporting on sustainability, and measures various activities and processes in the field of corporate social responsibility. Gjølberg (2008) points out those Nordic companies are generally subject to strict social and environmental regulations, and that they are very dedicated to the international agenda on corporate social responsibility. British and Dutch civil societies are actively involved in corporate social responsibility, with organizations such as SustainAbility, AccountAbillity, and the GRI secretariat, which contribute to increased corporate social responsibility efforts in their communities. Positive results from Spain and France in this domain are surprising. Companies from these countries are not considered very active in the global community of corporate social responsibility. This conclusion is derived on the basis of Initial corporate social responsibility index, which includes the participation of organizations in the CSR community (Global Compact) and the practice of reporting on corporate social responsibility (Global Reporting Initiative – GRI). Based on all other indicators, France and Spain have low or negative points. This could indicate that the Spanish and French business communities have taken an active

role in corporate social responsibility, but so far have failed to achieve sufficient results to qualify for more demanding initiatives. It will be remarkable to see whether efforts of French and Spanish companies will bring performance improvement in the future.

On the other hand, a negative result of Germany is puzzling, given the fact that Germany is known for its high environmental standards. Possible explanation lies in the fact that Germany is a big economy of great regional importance, which is why German companies are more nationally or regionally oriented. In this case, their corporate social responsibility efforts can be oriented more towards national or regional initiatives which are not covered by the corporate social responsibility index. In addition, there are language barriers as it is known that in German-speaking countries English speaking skills are not at high level. Furthermore, national, social, political, and economic institutions play a significant role in shaping practice and performance.

The term "reporting" in terms of corporate sustainability reporting in the Czech Republic appeared after 1990, when the relevant statistical reports on the operations of organizations and mandatory financial statements of companies contained information related to environmental protection, accounting, statistics, social care legislation, etc. (Hřebíček et al., 2012). Reports on corporate sustainability include information on the impact of companies on the environment, financial information, and partly impact on society and this information is legally binding in the Czech Republic. Evaluation of the economic performance of companies in the Czech Republic relies on liquidity indicators, profitability indicators, debt indicators, indicators of financial structure and asset structure, activity indicators, and other indicators (benchmarking, economic value added – EVA, balanced scorecard, etc.). In the Czech Republic, the disclosure of voluntary reports is often adapted to the demands of target groups, in accordance with international standards, such as the Global Reporting Initiative (GRI).

The system of financial reporting in the Republic of Serbia is not perfect. Due to the inconsistent financial reporting in the Republic of Serbia (given frequent changes of regulations), accompanied by incomparable valuation methods of accounting categories, one could say that financial statements, in the best sense, represent only approximation of economic reality. When applying financial criteria in evaluating the efficiency of company operations, it should be borne in mind that the uniform accounting techniques are not used in the successive periods, that balance sheet represents only a snapshot in time (ad diem dictum), that changes in the value of money can have a significant impact on the financial statement values, and that the past cannot constitute a reliable basis for predicting the financial position and result of the company. It is, therefore, essential that the evaluation of performance, in addition to financial indicators, relies on non-financial indicators.

On the territory of the Republic of Serbia, there has been no extensive empirical research on measurement and evaluation of company performance (Domanović, 2010, 2013; Todorović et al., 2015). Research results indicate that companies in the Republic of Serbia predominantly use the metrics of discounted cash flow in investment decision-making, while the index of profitability and return period are used to the largest extent, and internal rate of return is applied to a greater extent than the net present value (Todorović et al., 2015). A large number of companies in the Republic of Serbia use solely accounting, although different criteria for evaluating the company performance identified on the basis of information in the financial statements. In this context, the

10 ЕКОНОМИКА ЭС

emphasis is on profit, contribution margin, return on investment, and earnings before interest and taxes (EBIT), earnings before interest, taxes, depreciation, and amortization (EBITDA), realization and average salary per employee in Euros. Accounting profit and accounting rates of return are still dominant in relation to the modern measures (Todorović et al., 2015). Managers of companies in the Republic of Serbia, in general, do not apply modern integrated models for evaluating the performance of companies for a variety of reasons: lack of information, knowledge, lack of understanding, lack of financial resources for the introduction and implementation of the model, unwillingness regarding change and management innovation, etc. (Domanović, 2010, 2013).

Republic of Serbia has made big step forward by adopting and continuous upgrading of the National Sustainable Development Strategy, which defines sustainable development as target-oriented, long-term, overall, and synergetic process with effects on all aspects of life (economic, social, environmental, and institutional) at all levels. The objective of this Strategy is to establish the balance among the three pillars of sustainable development: sustainable economic growth and economic and technological progress, sustainable social development. Thus, the Strategy makes a significant contribution to overcoming possible conflicting objectives of different aspects of social-economic development, eliminating the gap between the processes of establishing sectoral policies, and establishing a system of mutual advantages. This has been achieved in the joint work on the development of the Strategy through a broad participation of all key stakeholders in the Republic of Serbia.

Conclusion

The given considerations have confirmed the significance of the simultaneous use of financial and non-financial performance indicators for the purposes of evaluating sustainability. Unlike companies in the European Union, a large number of companies in the Republic of Serbia use solely financial, although different criteria for evaluating efficiency. Only a few companies, dominated by foreign capital, use an integrated system for evaluating performance, designed for the needs of foreign companies, and, as such, transposed into the Republic of Serbia.

Evaluating the performance of companies in the Republic of Serbia predominantly relies on accounting profit and accounting rates of return. Of primary importance are profit, contribution margin, return on investment, EBIT, EBITDA, realization and average salary per employee expressed in Euros.

Previous research has confirmed the hypothesis determined in the introduction. Specifically, companies in the European Union use a wide range of different models for the evaluation of performance, which incorporate financial and non-financial information. In contrast, modest empirical research in the Republic of Serbia has shown that companies in the Republic of Serbia base performance evaluation primarily on traditional financial metrics.

Republic of Serbia has adopted and continually improves the National Sustainable Development Strategy, which accentuates the importance of simultaneous use of financial and non-financial performance indicators. In that way, the Strategy makes a significant contribution to sustainable development in the Republic of Serbia. A large number of

Serbian companies and banks have started to publish the sustainability reports based on experience of foreign entities that operate in Serbia.

References

- Bini, L., & Danielli, F. (2011). *The Informational Capacity of Financial Performance Indicators in European Annual Reports.* Maggioli S.p.A.
- Chen, J., Tsou, H., & Huang, Y. (2009). Service delivery innovation: ancetedents and impact on firm performance. *Journal of Service Research*, 12(1), 36-55.
- Cotter, D. (2012). *Advanced Financial Rreporting*. Pearson Education Limited: England.
- Davies, T., & Pain, B. (2002). *Business Accounting and Finance*. McGraw-Hill Education Europe: England.
- Davis, S., & Albright, T. (2004). An investigation of the effect of balanced scorecard implementation on financial performance. *Management Accounting Research*, 15(2), 135-153.
- Domanović, V. (2010). *Balanced Scorecard mogućnosti i efekti primene*. Ekonomski fakultet Kragujevac, Kragujevac.
- Domanović, V. (2013). Efektivnost sistema merenja performansi u uslovima savremenog poslovnog okruženja. *Ekonomski horizonti*, 15(1), 31-44.
- Doupnik, T., & Perera H. (2007). International Accounting. McGraw-Hill: UK.
- Fraser, L. M., & Ormiston, A. (2013). *Understanding Financial Statements*. Pearson Education International: New Jersey.
- Gjølberg, M. (2008). Measuring the immeasurable? Constructing an index of CSR practices and CSR performance in 20 countries. *Scandinavian Journal of Management*, 25, 10-22.
- Grant, R. M. (2002). Contemporary Strategy Analysis: Concepts, Techniques, Applications. Oxford: Blackwell.
- Hřebíček, J., Štencl, M., Trenz, O. & Soukopová, J. (2012). Current trends in corporate *performance* evaluation and reporting in the Czech Republic. *International Journal of Energy and Environment*, 1(6), 39-48. http://www.telekomunikacije.rs/upload/images/radovi/broj10rad1files.
- Ittner, C. D., Larcker, D. F., & Meyer, M. W. (2003). Subjectivity and the weighting of performance measures: evidence from a balanced scorecard. *The Accounting Review*, 78 (3), 725-758.
- Jensen, M. C. (2001). Value maximization, stakeholder theory, and the corporate objective function. *Journal of Applied Corporate Finance*, 14(3), 8-21.
- Kotane, I., & Kuzmina-Merlino, I. (2012). Assessment of financial indicators for evaluation of business performance. *European Integration Studies*, 6, 216-224.
- Kothari, J., & Barone, E. (2006). Financial Accounting: An International Approach.

 Prentice Hall: Harlow.

12 ЕКОНОМИКА ЭЕ

- Krstić, B., (2012) *Uloga strategijske kontrole u unapređenju poslovnih performansi*. Ekonomski fakultet: Niš
- Krstić, B., Stojanović, M., Stanišić, T., (2012). Sustainability reporting in order to improve companies' socially recponsible practices, НАУКА-БИЗНЕС-ОБРАЗОВАНИЕ: ПРОБЛЕМЫ И ПЕРСПЕКТИВЫ КОМПЕТЕНТНОСТНОГО ВЗАИМОДЕЙСТВИЯ, УЛЬЯНОВСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ ИНСТИТУТ ЭКОНОМИКИ И БИЗНЕСА, Ульяновск, Редактор: Татьяна Иванова, 156-159.
- Krstić, B., & Sekulić, V. (2013). *Upravljanje performansama preduzeća*. Ekonomski fakultet: Niš
- Krstić, B., Domazet., S. & Stojanović., M., (2013). *Izveštavanje o ekološkim aspektima poslovanja preduzeća kao deo izveštavanja o održivom* razvoju, *Ecologica* (ISSN 0354-3285), No. 71, 387-391.
- Krstić, B., & Bonić, Lj. (2013). *Upravljanje vrednošću za vlasnike*. Ekonomski fakultet: Niš
- Krstić, B., Ivanović, V., (2014). How to apply the Sustainability Balanced Scorecard concept, *Economic Themes*, 52 (1), 65-80.
- Perrini, F., & Tencati, A. (2006). Sustainability and stakeholder management: the need for new corporate performance evaluation and reporting systems. *Business Strategy and the Environment*, 15, 296-308.
- Peterson-Drake, P., & Fabozzi, J. F. (2012). *Analysis of Financial Statements*. Third edition; John Willy & Sons, Inc.: USA.
- Todorović, M., Kaličanin, Đ., & Nojković, A. (2015). Prakse merenja performansi u preduzećima u Republici Srbiji. *Ekonomski horizonti*, 17(1), 45-59.
- White, G., Sondhi, A., & Fried, D. (1993). *The Analysis and Use of Financial Statements*. John Willy & Sons, Inc.: USA.

ЭЕ ЕКОНОМИКА

Rajko M. Bukvić¹

Geographical Institute "Jovan Cvijić" of the Serbian Academy of Science and Arts, Belgrade, Serbia Nizhny Novgorod State University of Engineering and Economics, Knyaginino, Russia

ORIGINAL SCIENTIFIC ARTICLE doi:10.5937/ekonomika1603015B Received: July11, 2016 Accepted: August 23, 2016

REPUBLIC OF ADYGEA – SMALL AND BEAUTIFUL

Abstract

In this paper is considered the Republic of Adygea, one of the smallest federal subjects of the huge and complexly organized Russian Federation. Here is presented a concise history of building of the republic, as its today's natural characteristics: geographic position, area size and population, relief, climate and water, and natural resources and economy. Especially is emphasized the attractiveness of its touristic destinations and cultural heritage, as conditions for tourism development. Specific possibilities for cultural cooperation between Serbia and Adygea provides Circassian minority, who settled in Kosovo (and in other parts of Serbia) after the Crimean War, one part of which returned to the homeland.

Key Words: Adygea, Krasnodar Reservoir (Kuban Sea), Plateau Lago-Naki, Scythian gold, agro-industry, tourism, heritage, development, cooperation, Circassians in Kosovo, cultural cooperation

JEL Classification: R10, R11

РЕПУБЛИКА АДИГЕЈА – МАЛА И ЛЕПА

Апстракт

У чланку се разматра Република Адигеја, један од најмањих федералних субјеката огромне и комплексно организоване Руске Федерације. Приказана је кратка историја стварања републике, и њене данашње карактеристике: географски положај, површина и становништво, рељеф, клима и воде, као и природни ресурси и економија. Посебно се подвлачи њена атрактивност као туристичке дестинације и њено културно наслеђе, као услов за развој туризма. Специфичне могућности културне сарадње Србије и Адигеје пружа черкеска мањина насељена на Косову (и другим деловима Србије) после Кримског рата, чији се један део вратио у постојбину.

Кључне речи: Адигеја, Краснодарско вештачко језеро (Кубањско море), Плато Лаго-Наки, Скитско злато, агроиндустрија, туризам, наслеђе, развој, сарадња, Черкези на Косову, културна сарадња

1

¹ r.bukvic@mail.ru

Introduction

Russia is the world's largest country, spreading over two continents – Europe and Asia, and covering 17,125,187 km² (Figure 1). At the beginning of 2016, the population is officially estimated to 146.5 million inhabitants. Today's Russia is a successor to several states. According to the questionable "Invitation of the Varangians" theory (Norman or Normanist theory), with its first proponents, the 18th-century German historians of Russia – Gerhardt Friedrich Bayer, Gerhard Friedrich Müller, August Ludwig von Schlözer and other German historians, such as Johann Erich Thunmann – all of those states originated in the ancient Russian state, founded in 862 and governed by the Rurik dynasty.

The modern-day Russian Federation is the legal heir of the Soviet Union (USSR). As Russian Soviet Federative Socialist Republic (RSFSR), it was part of the USSR from 30th December 1922, when the Soviet Russia, Ukraine, Belorussia and the Transcaucasian Federation united into the Soviet Union, until the end of 1991. On 8th December 1991, the Belavezha Accords signed by Russia, Ukraine and Belorussia declared the USSR dissolved and on 12th December, the agreement was ratified by the Supreme Soviet of the RSFSR. On 25th December, the Supreme Soviet adopted a law to rename the RSFSR to Russian Federation. Two years after, on 25th December 1993, a new constitution came into force and it is current to the present day.



Figure 1. Russian Federation, Orthographic Projection Source: https://ru.wikipedia.org/wiki/Russia

Russia is a complex entity, composed not only of republics, but also of other types of federal units, which all have a common denomination: federal subjects. The subjects of the contemporary Russian Federation were formed in the times of RSFSR. When the current Constitution was adopted in 1993, it defined 89 subjects. Subsequently, a series of transformations and name changes occurred, so after some regions unified on 1st March 2008, there was left a total of 83 subjects. Following the incorporation of Crimea referendum held on 18th March 2014, the number of federal subjects increased to 85 (Figure 2).

16 EKOHOMUKA **∋e**

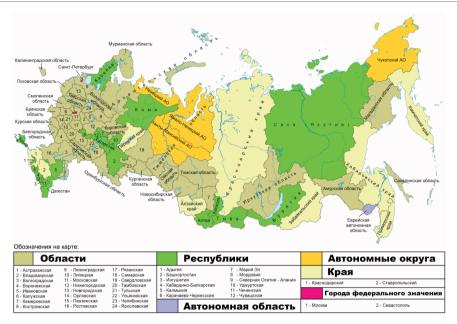


Figure 2. Russian Federal Subjects
Source: http://kcbux.ru/Statyy/ZA_zizny/za-016_karta-RF.html

According to the Russian Federation Constitution, the status of a federal subject, being the territorial unit of the highest level, belongs to the cities of federal importance (Moscow, Sankt Petersburg and, after the incorporation of Crimea on referendum held on 16th March 2014, also Sevastopol), and also to 22 republics (Adygea, Altai, Bashkortostan, Buryatia, Chechnya, Chuvashia, Crimea, Dagestan, Ingushetia, Kabardino-Balkaria, Kalmykia, Karachaev-Cherkessia, Karelia, Komi, Mari El, Mordovia, Sakha (Yakutia), North Ossetia-Alania, Tatarstan, Tuva, Udmurtia, Khakassia), 9 krais (Altai, Zabalkaysky, Kamchatka, Krasnodar, Krasnoyarsk, Perm, Primorsky, Stavropol, Khabarovsk Krai), 1 autonomous oblast (Jewish Autonomous Oblast), 46 oblasts (Amur, Arkhangelsk, Astrakhan, Belgorod, Bryansk, Chelyabinsk, Ivanovo, Irkutsk, Kaliningrad, Kaluga, Kemerovo, Kirov, Kostroma, Kurgan, Kursk, Leningrad, Lipetsk, Magadan, Moscow, Murmansk, Nizhny Novgorod, Novgorod, Novosibirsk, Omsk, Orenburg, Oryol, Penza, Pskov, Rostov, Ryazan, Samara, Saratov, Sakhalin, Sverdlovsk, Smolensk, Tambov, Tver, Tomsk, Tula, Tyumen, Ulyanovsk, Vladimir, Volgograd, Vologda, Voronezh, Yaroslavi Oblast) and 4 autonomous okrugs (Nenets, Khanty-Mansi, Chukotka and Yamalo-Nenets Okrug).

In addition to the federal organs, each federal subject has its executive (governor), legislature (regional parliaments) and judicial branch (Constitutional or Statutory court). Each subject has its own Constitution (republics) or Statute (other subjects), as well as its own legislature, adopted by the respective regional parliament. The federal subjects each have two representatives in the Federation Council, which is the upper house of the Federal Assembly. All the subjects are equal in terms of their relationship with the federal government. They are empowered to solve issues delegated by the Constitution. The federal subjects are given no right to separate from the Russian Federation.



Figure 3. Federal Districts (Okrugs) of Russia Source: http://kcbux.ru/Statyy/ZA zizny/za-016 karta-RF.html

According to the fundaments of political and social organization of the Russian Federation, the federal subjects are grouped in federal okrugs (districts) since 2000 (Figure 3). Districts are not subjects or any other kind of constituents of the Federation and they were formed after the example of the military okrugs. A federal district is an area in which the President of Russia is represented by a polpred representative, one of the leading members of the Administration of the President of Russian Federation, who substitutes the President in a number of occasions. At first seven okrugs were formed, while in 2010 the North-Caucasian separated from the South Federal Okrug, and after the incorporation of Crimea, the Crimean Federal Okrug was established. Therefore, 9 federal okrugs exist in today's Russian Federation.



Figure 4. Southern Federal District Source: Арена

Main data of the federal districts are given in Table 1. They are established from 2010 Russian Census, except for the Crimean Federal District, that was incorporated in Russia on March 2014, after the Russian Census was held. As we can see, the Southern Federal District is one of the smallest – it is bigger only than North Caucasian and Crimean Districts. On the other hand, the number of inhabitants in this district is smaller only in comparison to Central Federal District, Volga Federal District and Siberian Federal District. This fact shows that the population density and, consequently, the economic activities in Southern Federal District are among the biggest in Russian Federation. Southern Federal District envelops two republics – Adygea and Kalmykia, Krasnodar Krai² and three oblasts – Astrakhan, Volgograd and Rostov, with capitals Maykop, Elista, Krasnodar, Astrakhan, Volgograd and Rostov-on-Don (Figure 4).

Table 1. Federal Districts of Russia						
Name of District	Establishment Date	Area (km²)	Population (2010 Russian Census)	Number of Federal Subjects	Administrative Center	
Central Federal District	May 18, 2000	652,800	38,438,600	18	Moscow	
Southern Federal District	May 18, 2000	418,500	13,856,700	6	Rostov-on-Don	
Northwestern Federal District	May 18, 2000	1,677,900	13,583,800	11	Saint Peterrsburg	
Far Eastern Federal District	May 18, 2000	6,215,900	6,291,900	9	Khabarovsk	
Siberian Federal District	May 18, 2000	5,114,800	19,254,300	12	Novosibirsk	
Ural Federal District	May 18, 2000	1,788,900	12,082,700	6	Yekaterinburg	
Volga Federal District	May 18, 2000	1,038,000	29,900,400	14	Nizhny Novgorod	
North Caucasian Federal District	January 19, 2010	170,700	9,496,800	7	Pyatigorsk	
Crimean Federal District	March 21, 2014	26,100	2,284,400*	2	Simferopol	

Table 1. Federal Districts of Russia

Source: (Federal Districts of Russia)

Besides districts (okrugs), the federal subjects are grouped into:

- 12 economic regions,
- 10 geographic regions,
- 8 natural regions,
- 4 military districts (6 as of 2010), and
- 11 time zones.

Republics as the Federal Subjects of Russian Federation

According to the Population Census 2010, in Russian Federation live 304 nationalities. Among them, 41 nationality has more than 100,000 inhabitants. After the incorporation of Crimea, the Crimean Tatars became the 42^{nd} nation with more than

^{*} http://en.krymedia.ru/society/3365334-Results-of-Census-Population-of-Crimea-is-2284-Million-People

² About Krasnodar Krai see more in: (Bukvić 2014).

100,000 people. Although in many cases all nationalities live mixed in Federation, they are more or less concentrated on minor territory, forming their own land. These lands are formed as republics. Republics are the specific subjects in Russia; they were formed as national-state formations. There are 22 republics in Russian Federation (Figure 5). Contrary to other subjects, they have their own constitution, and the right to establish their own official language. In Republic of Adygea official languages are Russian and Adygean (or West Circassian).

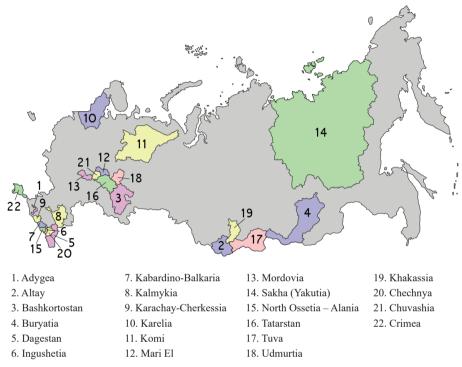


Figure 5. Republics of the Russian Federation Source: https://ru.wikipedia.org/wiki/Республика (Россия)

Republic of Adygea (other spellings Adygeya, Adyge, Adyghea) is one of the youngest formations in the status of republic within the today's Russian state. The formation of the republics, in general, began after the October Revolution, with many transformations, particularly in circumstances of the civil war and war against intervention of foreign forces. The territory of Adygea was in Kuban-Black Sea Soviet Republic from 30th May 1918 to 6th July 1918; it was formed by merging of the Black Sea Soviet Republic (existing from March—May 1918 on the territory of Black Sea Governorate in the Russian Empire) and Kuban Soviet Republic (existing from 13th April to 30th May 1918 within the general Kuban territory), with its capital in Yekaterinodar. Later, Kuban-Black Sea Soviet Republic was merged with Stavropol Soviet Republic and Terek Soviet Republic into the North Caucasian Soviet Republic (existing from 7th July to December 1918 with capital in Yekaterinodar, to August 17, when it was taken by Denikin's Volunteer Army, and then in Pyatigorsk to the end of 1918, when the majority of the

20 ЕКОНОМИКА Э€

North Caucasian Republic's territory was captured by White Army, and all republics were abolished). After the end of civil war, Adygea was formed at 27th July 1922, as Adygea-Cherkessian autonomous oblast on the territory of Maykop and Yekaterinodar sections of Kuban-Black Sea oblast. From August 1928 it was renamed into Adygean autonomous oblast. Finally, from July 1991 it is again republic – Republic of Adygea.

Republic of Adygea belongs to the Southern Federal District and North Caucasian Economic Region of the Russian Federation. This region comprises the whole of the North Caucasian Federal District (republics: Chechen, Dagestan, Ingushetia, Kabardino-Balkar, Karachay-Cherkess and North Ossetia-Alania, and Stavropol Krai) and part of the Southern Federal District: Republic of Adygea, Krasnodar Krai and Rostov oblast. North Caucasian Economic Region is one of the richest and strongest regions in Russia.

The symbols of the republic, the flag and the coat of arms of the Republic of Adygea are presented on Figure 6. On the green and gold Adyge flag are 12 stars that represent the 12 tribes of Adygs (Circassians) people. Adygea's coat of arms also shows these 12 stars - the 12 tribes of Adyghe nation. In the center of the coat of arms is a rider on a horse, Sosruko or Sosriqwe, the hero of the Nart saga (saga of the North Caucasus' nations), with a torch in his hand - a torch that he seized from the gods for people. Author of the national coat of arms is the artist of the Republic Davlet Meretukov.





Figure 6. Flag and Coat of Arms of the Republic Adygea Source: *Гербы регионов России*, № 2.

In terms of administrative divisions, Republic of Adygea consists of seven districts (raions) and two cities/towns (Figure 7): 1. Maykop City, 2. Adygeysk Town, 3. Giaginsky District, 4. Koshekhablsky District, 5. Krasnogvardeysky District, 6. Maykopsky District, 7. Takhtamukaysky District, 8. Teuchezhsky District, 9. Shovgenovsky District.

The capital city of the republic is Maykop. The name the city comes from Adyghe word that means "apple valley". It is founded in 1857 as a fortress on the River Bela. In the second half of the 19th century the city lost its military importance and in 1870, by the decision of the Emperor Alexander II, was declared as county. The city is inhabited by 153,500 citizens (144,249 according to Census in 2010). Maykop is located in the north foothills of the Caucasus Ridge on the right bank of the Belaya River (the Kuban River tributary). Maykop is 1,255 km far from Moscow and is in the same time zone. The city's name originates from an Adyghe word "Myequape" (Мыекъуапэ) that is translated as "a settlement in the mouth of a river, flowing through the valley of apple trees". It was established in 1857 as a Russian military fort and already in 1870 Maykop turned from a village into the main district town. Since 1991, Maykop has been the capital of the

Republic of Adygea in the Russian Federation. Maykop is also a cultural center of the republic. The National Museum of the Republic of Adygea in Maykop possesses unique archaeological and ethnographic collections. Also, the city has a branch of the State Museum of Oriental Art. Republic has two local universities where the aspiranture and doctorate are accessible, and where the scientific councils work. Adyge State University (former Teachers' Training Institute, founded in 1940) consists from many institutes (Art Institute and Institute of Physical Culture and Judo) and faculties: Adygei Philology and Culture, Natural, Engineering Physics, Historical, Mathematics and Computer Science, International, Pedagogy and Psychology, Philological, Economic, Legal, Department of Social Technologies and Tourism, Department of Mezhfakultetskie, and filials in Belorechensk and Novorossisk. Maykop State Technological University was founded on the basis of three colleges in 1993.

Geographic Position, Area Size and Population of Adygea

Republic of Adygea is one of the smallest federal subjects within the Russian state. It covers the area of 7,792 km² (0.05% of territory of Russian Federation), with territory that makes an enclave within Krasnodar Krai. Among the federal republics, smaller than Adygea is only Ingushetia. All other federal subjects in Russia are bigger, except the cities of federal importance (Moscow, Sankt-Petersburg and Sevastopol). Among European countries, Adygea is about the size of Cyprus (9,251 km²); it is greater only than Luxembourg, Andorra, Malta, Liechtenstein, San Marino, Monaco and Vatican. The republic is situated at basin of two main Kuban inflows – Laba and Belaya. Main part of the republic covers the area between 44° and 45°N, spreading the geographic latitude of, for example, Serbian capital Belgrade (44°49°14") and its neighborhood. The whole length of the borders of Adygea is 900 km, the spans in are 208 km (in direction north-south) and 165 km (in direction west-east).

45th circle of latitude crosses the Krasnodar Reservoir (Kuban Sea), the biggest reservoir of the Northern Caucasus. Its area is 420 km², volume 2.0 to 3.1 km³ (it is regulated, the water level oscillating about to 8 m), long 40 km, wide to 15 km. The reservoir was built in 1973–1975; east part of new reservoir includes former Tschikskoe Reservoir. 44th circle of latitude crosses the north-western parts of Big Caucasus. In the west-east direction, the republic is crossed with the 40th meridian, that goes through Lago-Naki Upland, one of the natural jewels of the republic, and near west of the capital Maykop (Figure 7).

22 ЕКОНОМИКА ЭЕ

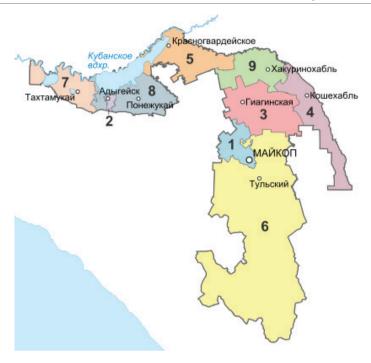


Figure 7. Administrative Division of Republic of Adygea Source: https://ru.wikipedia.org/wiki/Адыгея

On the north, Adygea is bordered by Krasnoarmeysky, Dinskoy, Ust-Labinsky, Kurganinsky districts-raions of the Krasnodar Krai, and the City of Krasnodar; on the west, by Apsheronsky, Belorechensky and Seversky districts-raions, and the territory of the administration of City Goryachy Klyuch; on the east by Mostovsky, Labinsky and Kurganinsky districts-raions of Krasnodar Krai. On the south, republic is bordered by raions of Big Sochi.

On the 1st January 2015, the total population of the Republic was estimated to 449,171 inhabitants (Численность постоянного населения 2015). The population density (57.6 per km²) is relatively high for the Russian Federation, although lower than in Krasnodar Krai. The shares of urban and rural population are 47.1 and 52.9. In comparison to Russian Federation, the share of urban population is considerably lower – in Federation, this share exceeds three quarters. It is also lower in comparison to Krasnodar Krai (54%).

Adygea is multi-ethnic republic. Over 80 ethnic groups live in the Republic. According to the Census 2010 (Итоги ... Том 4, 2012), dominant ethnicity are the Russians (63.6%), Adyghs, including Circassians are the second and make up 25.8%. Other ethnicities make up less than 10% of total population: Armenians (3.7%), Ukrainians (1.4%), Kurds (1.1%), Tatars (0.6), Roma (0.6%), etc. Titular nationality is more compact and make majority in city Adygeysk (78.4%) and in Teuchezhsky (68.4%) and Shovgenovsky District (62.5%), also in Koshekhablsky District (49.4%), although there is less than half of total population.

Titular nationality – Adyghs (Circassians) were one of the most migrant population in history, and not only in Russia. "Circassians" is a common name for the group of tribes from north of Caucasus and Kuban (self name is Adyge); in 1835 there were 527,000 inhabitants. After the Crimean (Eastern) war 1853-1856, in 1858 thousands of them emigrated in Turkey and number of inhabitants decreased to 315,000. After the new Russo-Turkish war in 1878 the population of Circassians was decreased in 1897 to 144,847 (Брокхаус и Ефрон, article Черкесы 2003). The tribes of Circassians are: Abzakh, Besleney, Bzhedug, Kabardian, Mamkhegh, Natukhai, Shapsug, Temirgoy, Ubykh, Yegeruqwai, and Zhaney. The administrative divisions in USSR placed Circassians under four different designations, namely Advgeans (Adyghe in Advgea), Cherkessians (Adyghe in Karachay-Cherkessia), Kabardians (Adyghe in Kabardino-Balkaria), Shapsugians (Adyghe in Krasnodar Krai), but all the four are essentially the same people (Adyghe) residing in different political units. Total population of Adyghes today is estimated very different, from about four to eight millions, but many of them live in Turkey, Jordan, Syria, Saudi Arabia, Germany, United States of America. In Russia, according to the Census 2010, Circassian population is 720,000, in Adygea 110,229. There are also small Circassian tribes: Adele, Ademey, Guaye, Shegak, Chebsin, Makhosh (Circassians).

After the Crimean war, in 1864, as the Circassians of Kosovo say themselves, their predecessors were forced to migrate to Kosovo (Джандар 2007). The presence of Circassians in Kosovo and in Metohia noticed famous Serbian traveller and historian Miloš S. Milojević (Милојевић 1871, 1877). In 1870s he traveled through the part of Old Serbia territory, then yet occupied by Turkey, that was considered as "the land of ethnic nucleus and center of Serbian medieval state of Nemanjić's period", and consisted from "areas": Old Raška, Kosovo, Metohia, basin of Binička Morava and at the north Povardarje with Skopje" (Стојанчевић, 1997). He traveled by directive of Principality of Serbia Government and by intention of the Serbian Learned Society, predecessor of the contemporary Serbian Academy of Sciences and Arts, with permission of Turkish government. He found eight Circassian villages on Kosovo and neighboring areas, more precisely in Prishtina and Kurshumliya kadiluk (nahiya). The migration of Adyges after Crimean war, especially to Kosovo and Metohia noted Kanitz (Канитцъ 1876). In 1952 begins the migration of Adyges from Kosovo and Metohia to Turkey or back to the Adygea. Journey back to Adygea described Dzandar (Джандар 2007).

The religion among the Circassians is predominantly Muslim, but there is minority Habze, Orthodox Christians and Catholic, as well the Abkhazo-Circassian neo-paganism. Since the late 18th and early 19th century, the majority of Circassians are predominantly Sunni Muslim. In Adygea, among the whole population, the main religion is Orthodoxy.

Relief, Climate and Water

The Republic of Adygea lies at the south-west of Russian Federation (Figure 5). The Republic is entirely surrounded by Krasnodar Krai, that is with 75,485 km² nine times bigger than Adygea. Until 1991, Adygea was an autonomous oblast within the Krasnodar Krai, but then it declared independence and became republic. Adygea lies on the left coast of the Kuban River, which clearly divides it in two physical parts: the bigger

24 EKOHOMИKA **ЭС**

at the North that is plain, and mountainous at the south. The highest mountain peak is 3,238 m (mountain Chugush on the south of the republic, Figure 8). The mountain is located in the Western Caucasus, and contains 10 glaciers covering an area of 1.2 km².

The republic's major mountains and peaks range in height from 2,000 to 3,238 metres, and include: Chugush Mountain — 3,238 m, Mount Fisht — 2,867 m, Oshten Mountain — 2,804 m, Pseashkho Mountain — 2,743 m, Shepsi Mountain — 2,755 m (mountain peak near Kurdzhinovo, Karachayevo-Cherkesiya). Oshten together with Fisht are the first from west Caucasus peaks, arise to the high of snow line and covered not only with even snows, but also with little glaciers.

The republic is rich of water, which resources are widely used in farming. The main river in Republic is 870-kilometer long Kuban River (Figure 9). Kuban (Russian: Куба́нь, Adyghe: Псыжь) is one of the major navigable rivers in the Caucasus region; it is navigable from the city Ust-Labinsk, in central part of the Krasnodar Krai on right (high) bank of Kuban River, up to Krasnodar. It forms part of the northern border between the Republic of Adygea and Krasnodar Krai. Kuban flows mostly through Krasnodar Krai for 660 kilometres but also in the Karachay–Cherkess Republic, Stavropol Krai and the Republic of Adygea. Kuban basin size is 57,900 km². The river was known to Herodotus as Hypanis, flows 870 kilometres north and west from its source near Mount Elbrus in the Caucasus Mountains (as it is formed at the merge of its two tributaries, Ullukam and Uchkulam), eventually reaching Temryuk Bay in the Sea of Azov. Kuban has great economic importance, among others, to the Adygea. In 2008—2009 there were the plans to build Adygea Hydroelectric Power Station, capacity of 72 MWh, but up to day these plans were not implemented.

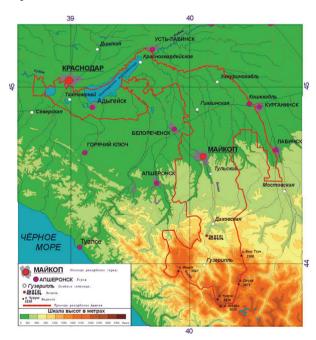


Figure 8. Physical Map of the Republic of Adygea
Source: http://russia.auto-maps.com/physical_map_of_the_republic_of_adygea/



Figure 9. Basin of the River Kuban Source: (Сафронов, А.В. Бассейн Кубани)

Other important rivers in Adygea are Belaya and Laba. Belaya River, 273 kilometers long, (Russian: Бе́лая; Adyghe: Шъхьагуащэ) is a river in the Republic of Adygea and Krasnodar Krai of Russia. It is a tributary of the Kuban River, which it joins in the Krasnodar Reservoir. Laba River, 214 km long, forming part of the eastern border between Adygea and Krasnodar Krai, (Russian: Лаба (Laba); Adyghe and Kabardian: Лабэжъ) is a river in Karachay-Cherkessia, Adygea and Krasnodar Krai. It is a tributary of the Kuban River, which it joins at Ust-Labinsk. It is formed by the confluence of the Bolshaya Laba River and the Malaya Laba River. It is used for irrigation and log driving. It is also suitable for rafting. Other rivers are Chokhrak River, Dakh River, Fars River, Khodz River, Kisha River, Psekups River, Pshish River, Sakhray River, Sukhoy Kurdzhips River — flows near the archaeological site at Mezmaiskaya cave. At the slopes of Fisht their flow start Rivers Pshekha 139 km long and Belaya, that belongs to Kuban basin, and river Shakhe inflows directly into Black Sea in Sochi. On the west mountain slopes is the waterfall Fisht 200 meters high. Other beautiful waterfalls are Rufabgo, Pshekhsky, Keyvu, Shapsug, Psedakh.

Climate in the republic is moderately continental (Котляков 2003). Average temperature in January is –2.3°C, in July 21.5°C. Precipitations are cca 700 mm per year. Main river is Kuban, with great reservoir (Kuban Sea). Also, there are the Shapsugskoe and Octyabrskoe reservoirs.

26 EKOHOMИКА **ЭС**

Natural Resources and Economy

The republic is rich in oil and natural gas. In 1911, oil deposits were discovered in the vicinity of today's capital city Maykop. The discovery of extensive underground oil reserves has made Maykop a major center for oil extraction for the Soviet Union and subsequently, Russia. The amount of oil in the deposit was 171,000 tons on 1st January 1992 (out of which only 3,000 tons are produced each year). Adygea also has natural gas fields. The fields under development include the Maykop field (which is practically depleted), the Koshekhabelskoye field (which originally had 10.2 billion m³, of which only about 8% has been harvested) and a part of the Nekrasovskoye gas condensate field. Exploration is underway in the Severo-Kuzhorskoye field (with an estimated 1.6 billion m³); prospects were discovered in the Vostochno-Kuzhorskoye field (2 billion m³) and Vostochno-Giaganskoye field (4.4 billion m³). Expected gas reserves in this field in total amounts 20 billion m³. The Nekrasovskoye field is at the final developmental stage. (Data for oil and gas from: Smirnov 2006.)

Other natural resources include, in mountain part of republic, little fields (mineral deposits) of gold, silver, tungsten, iron, mercury, lead, and zinc. In republic are the deposits of building materials, including brick and haydite clay, sand, gravel, and ornamental stone. Also, it has large reserves of rubble. Other economically important sectors are food processing and the timber industry. Food, timber, woodworking, pulp and paper, heavy engineering, and metal-working are the most developed industries.

Even though it is now one of the poorest parts of Russia (average income is 12,493.4 rubles per capita), the republic has abundant forests and rich soil. The soil is predominantly chernozem, there are also kastanozems and mountain forest soils. The region is famous for producing grain, sunflowers, tea, tobacco, etc. Hog and sheep breeding are also developed. Forests cover almost 40% of its territory. About two-fifths of the territory of the republic is covered by temperate deciduous forest (beech, oak, hornbeam, maple). The main part of Caucasus Nature Reserve is placed in Adygea. Wild fruit forests, chestnut and nut plants are of great value. These forests are the unique natural phenomenon. They take up an area of over 15,000 ha (36,000 acres). The wild fruit forests that we see now are only the remains of the former famous "Circassian gardens".

Favorable climatic conditions, presence of productive land and industrial reserves of the series of mineral resources, to a large extent determined the priorities in development of republic's economy. Republic protrudes as vendor of various agricultural row, products of engineering and metalworking, forestry and wood industry, also food industry. Great reserves of mineral and thermal waters make possible to develop sanatorium network. Here is a balneary and a Maykop spring of mineral water rich with Iodine and Bromine that is intended for treating pancreatic diabetes, adiposity, gout, as well as chronic gastritis with normal and hypersecretion of stomach. Chloride-hydrocarbonate mineral water from Lemonade factory "Maykopskaya" can be one of the important Adygean export products.

In republic today, about 90 large and middle companies in 11 branches are active. Leading branch is food manufacturing; the largest share of them in general volume of production is about 50 percent. Food industry enterprises produce meat and vegetables, fruits and fruit preserves, confectionery, pasta and wine and spirits, beer and dairy

products. Besides the production for the domestic market, republic also exports: products of engineering, forestry, light industry. The new perspective enterprises for production of polypropylene sack tare (bags) are also established in Adygea.

Adygeysk (Russian: Адыгейск; Adyghe: Адыгэкъалэ, Adəgăqală) is a town in the Republic of Adygea, located near Krasnodar Reservoir, 100 kilometers northwest of Maykop, the capital of the republic. Population: 12,237 (2010 Census). In Adygeysk are situated the companies for bakery products, eastern sweets and confectioneries, wine materials, dairy products and Adygea's cheese, soft drinks, beer, metal constructions for house building, modular buildings with small number of floors, knitwear, stores of petroleum products.

Agriculture is the foreground direction for the economy development. Natural conditions determine its multi-branch character. There is developed meat and dairy farming, manufacturing poultry farming, pisciculture. In agricultural sector production is made from more than 1.5 thousand subjects of all ownership: joint-stock companies, partnerships of varying types, collectively-equity economies. The crop area is about 200 thousand hectares; total harvest of cereals increased to 350 thousand tones in 2001.

Grain and industrial crops, vegetables have the largest share in the crops. Here is grown wheat, hordeum, mais, rapeseed, rice, sunflower, southern apple varieties, pear, plum, wild cherry, cherry, grape vine, other fruits, medicinal plants. The thing for special pride of Adygea is tea. Most "northern" in the world, it is very highly valued by connoisseurs. More than 60 years exists Maykop experimental station St.-Petersburg's All-Russian Institute of Plant "Vavilov" (Всероссийский институт растениеводства им. Н.И. Вавилова). Here, the new varieties and hybrids of fruit and vegetables are being created. Station has one of the greatest collections of horticultural crops in the world (fruit, berries and nuts).

Long since, the national pride of Adyges was horse breeding. Now, in republic revives this forgotten branch of economy. Specialists of the State Stables and Maykop horse-breeding nursery are developing sport horse-breeding. Horse racing is not only spectacular sight, but the possibility to invest capital in the cultivation of top-class horses. Very famous are hiking mountains and horse trails and routes. Vacation camps and bases can at the same time accept more than 1,500 vacationers.

Republic of Adygea constantly seeks to extend international economic relations. Partners of Adygea companies and organizations in foreign trade are more than 30 countries, including Germany, Turkey, France, Italy. Republic exports gearboxes of various modifications, machine tools, lumber, oilseeds, rice, canned products. In Adygea, about 50 companies work with foreign investments – companies from United Kingdom, France, Turkey, Syria.

The important constituents of natural potential of republic are resort and recreational resources and touristic resources. The territory of Adygea come under the zone of mixed tourism, as sports and medical, also informative. Its saturation of natural objects tour show is high. Bolshaya Azishkaya and Dakhovskaya caves, Khadzhokhsky Canyon, River Gorge Great Rufabgo, waterfalls, represent the attraction to the tourists. Republic has significant hunting resources.

In Adygea many natural protected zones were made. The first is "Caucasus Nature Reserve" (also Caucasus, or Kavkasky, Russian: Кавказский государственный природный биосферный заповедник им. Х.Г. Шапошникова), situated on the

28 EKOHOMИКА **ЭС**

territories of Republic of Adygea, Krasnodar Krai and Karachay-Cherkess Republic; series of the unique natural monuments and national natural park "Mountains of Adygea". Caucasus Nature Reserve is a Russian "zapovednik" (strict ecological reserve) covering a heavily mountainous section of the Northwest Caucasus Mountains. It is the largest and the oldest in the territory of specially protected natural area in the Caucasus, having been created in 1924 as the Caucasian Bison Reserve. In 1979, the site was named a UNESCO Biosphere Reserve, and in 1999 included in UNESCO World Heritage Site. In 2008 it was officially renamed after Khachatur (Christopher) G. Shaposhnikov, the biologist who founded the reserve. The area is situated in the Mostovsky District of Krasnodar Krai, covering an area of 280,335 ha. Bolshoi Tkhach is the natural park of regional importance, situated in Maykop raion. It is founded in 1997. The size of park is 3,705 ha. In 1999, with the other protected natural territories, it was included in object of World Natural Heritage "Western Caucasus". Adygea is the unique state entity in the world, where specially protected natural territories make more than one-third of its area, and nearly 14 percent became objects of World Natural Heritage.



Figure 10. Plateau Lago-Naki Source: (Василисков 2016а)

Plateau Lago-Naki — jewel of the mountain Adygea (see Василисков 2016a, also Василисков 2016б и 2016в). It is the highest accessible point, which can be reached by car. Most of the mountains of the Republic of Adygea are located on Lago-Naki plateau that stretches from the north to the south and from the west to the east for over 40 km. This is a common place for walking and mountain hiking, mountaineering and rock-climbing. Winter tourism and mountain skiing is now rapidly developing on Lago-Naki plateau territory. Just there pass all touristic routes to the most famous peaks of Caucasus Nature Reserve — Fisht, Pshekho-Su and Oshten. But it is much better to start

the route to the peaks from Yavorova Polyana, that is near settlement Guzeripl. There is also another way, where it is necessary to come to the to Azishskaya bend (known also as Stone Gate), to the narrow passage to Caucasus Nature Reserve, to go up to the observation deck and to enjoy plateau panorama.

The picturesque Lago-Maki plateau (Figure 10) is a unique place where can be found all wonders of the Caucasus — coves, snow covered mountain summits, rich alpine meadows, vast steppe, secular forests, mountain rivers with waterfalls and quiet lakes. Narrow impassable gorges adjoin spacious hollows between mountains. On the northern slope of Mount Fisht can be found the largest glacier — Bolshoy Fishtinsky — and 13 karst ponds that filled cup-like hollows made by the glacier. Next to the area are canyons of the Tsitsa River "boiling" with whirlpools and trees in blossom right behind it. Lago-Naki plateau is also known for a health resort that is located on the River Kurdzhips bank and thus carries its name. It specializes on treating the cardiovascular system, musculoskeletal apparatus, digestion system, nervous system and many other disorders. Visitors could spend their leisure time walking, riding a horse or a bicycle around the plateau. Extreme sports followers could go rafting. There is also a health improvement camp "Gornyi Kluch" (Mountain Spring) in Maykop District.



Figure 11. Guzeripl Dolmen № 1 Source: Guzeripl' Dolmen 1

Among other attractions of the Republic is the Belaya River canyon "Shum" that is also called as the Hadzhokskaya Gorge, where you could go on fascinating and unforgettable night walks; the Granite canyon and the Guamskoe Gorge, on the slopes of which you could see relic box-trees and yew-trees (4 km of Memzay settlement); the Rufabgo waterfalls; the Michael-Athos monastery founded in 1878; Azishskie karst caves, located in the southern part of the Azish-Tau Range on 1400 elevation above sea level (210 km from the region center). The caves are very picturesque and there is a guided tour through its passages and halls. Not far from a mountain settlement of Guzeripl (Russian Гузери́пль, Adyge Гъузэрыпль) can be seen the biggest dolmen of

30 ЕКОНОМИКА

the Republic (Guzeripl Dolmen № 1, Figure 11). The Guzerpil dolmen № 1 is one of the largest and most intact dolmens of Adygea. Dolmens (Adyghe: исп-унэ), a type of single-chamber megalithic tomb, represent a unique type of prehistoric architecture, built with precisely dressed large stone blocks. The Guzeripl dolmen 1, megalithic monument, is located on the territory of the Guzerpil cordon of the Caucasus Natural Reserve. It is dated to approximately 2000 B.C. Moreover, every spring Guzeripl hosts an international water rally.



Figure 12. Prehistoric lion, Gold, Maykop Source: (Prehistoric lion)

The territory of present Adygea republic was inhabited from ancient times. Abadzehskaya Paleolithic site is located in contemporary Maykop district. Tere are also a lot of archaeological sites of Bronze and Iron Ages. Maykop archaeological culture is well known, not only in Russia. Most of the precious items, excavated while Adygea was a part of Krasnodar krai, also known as "Scythian gold" or "Kuban gold", are located outside Adygea for the time being. Unique items were found during excavation of hills near the village of Ulyap (formerly Ulsky village), Krasnogvardeysky district. It is here, just outside Ulyap village, that precious adornments from Scythian burial mounds were discovered. There were many excavations: in 1898, 1908, 1909, 1982, 1983, 2007, (see Ivantchik and Leskov 2015). On the Figure 12, the prehistoric lion is presented: Prehistory, Plaque, Lion, from Gold, 6 cm, Maykop culture, 3000-2500 BC, Eneolithic period, Copper Age, The State Hermitage Museum, St. Petersburg.

Conclusion

Republic of Adygea is one of the smallest Russian federal subjects by both size and population, comparable only to European microstates. However, it is characterized by great natural and cultural diversity and heritage. Additionally, there are favorable conditions for tourism development. Considering the characteristics of the economies of Serbia and Republic of Adygea, the possibilities of their cooperation lie in the areas of high technologies, science and investigations and, above all, in the agro-complex, as well as tourism. As accurate as it may be when it comes to Russia as a whole, the stereotyped vision of Serbian agricultural and food production as our biggest exportation potential is, in this case, not fundamental.

In regards to the cooperation with this region, as well with the whole of Russia, Serbian construction operation companies should not be underrated, since despite all the difficulties this branch has gone through in the transition process, it succeeded in establishing good reputation during the Sochi Olympics infrastructure development, thus occupying solid positions within Russia.

As a completely specific opportunity for development of (cultural) cooperation between Serbia and Adygea we should mention Circassian minority inhabited in Kosovo (and in other parts of Serbia) after the Crimean War. Part of them returned to the homeland Adygea since the mid-20th century, especially at the end of the 1990s; however, some among them in 2000s opted for life in Kosovo. Culture of Adygea is ancient and colorful. National dances have one of the prominent places in it. The best representative of the national culture of Adygeya is its National Museum, which is in Maikop since 1926.

Acknowledgements

The article is part of the project III 47007, funded by the Ministry of Education, Science and Technological Development of the Republic of Serbia. Special thanks go to Milana Bukvić and Marija Bogdanović for the translation of text from Serbian to English.

References

Bukvić, Rajko. Krasnodar Krai – Industrial Giant and Tourist Jewel of the Russian Federation, *Journal of the Geographical Institute "Jovan Cvijić" SANU*, Vol. 64, 2014, № 3, 329–346.

Circassians, https://en.wikipedia.org/wiki/Circassians#Circassian tribes

Federal districts of Russia, https://en.wikipedia.org/wiki/Federal_districts_of_Russia

Guzeripl' Dolmen 1, http://www.megalithic.co.uk/article.php?sid=35550

Ivantchik, Askold and Alexander Leskov (red.) *The Ulskii Tumuli. Cultic and Burial Ensemble of the Scythian Period in the Northern Caucasus*, Berlin – Bordeaux – Moscow: Paleograph Press, 2015, 183 pp.

Prehistoric Lion, Gold, Maykop http://www.gettyimages.in/detail/illustration/prehistory-plaque-lion-from-maikop-russia-gold-6-cm-stock-graphic/112187784

Russia, https://ru.wikipedia.org/wiki/Russia

32 ЕКОНОМИКА **ЭС**

- Smirnov, Andrei. *Trouble on the Horizon? Ethnic Unrest in Adygea*, The Jamestown Foundation, 2006, 27 pp.
- Адыгея, https://ru.wikipedia.org/wiki/Адыгея
- Арена. Атлас Религий и Национальностей Российская Федерация. Главная страница проекта «Арена»: Некоммерческая Исследовательская Служба «Среда». www.Sreda.org
- Бельский, Денис. Республика Адыгея, *Гербы регионов России*, № 2, АРИФ-АиФ, Москва, 2015, 16+2 с.
- Большая энциклопедия России, Москва: Эксмо, 2008. 1024 с.
- Брокхаус, Ф. А. и И. А. Ефрон. Энциклопедический словарь, ЭКСМО, 2003, 832 с.
- Василисков, Андрей. Адыгея. Плато Лаго-Наки, 2016a, http://sakvojash.ru/blog/43792896557/Adyigeya.-Plato-Lago-Naki.?utm_campaign=transit&utm_source=main&utm_medium=page_0&domain=mirtesen.ru&paid=1&pad=1&mid=24759F6AC18FC035CEAB79186AF6B93D
- Василисков, Андрей. Путь на Оштен. Начало, 2016б, 3 февраля 2016, http://dron285.livejournal.com/38264.html
- Василисков, Андрей. Путь на Оштен. Часть вторая, заключительная, 2016в, 8 февраля 2016, http://dron285.livejournal.com/39153.html
- Джандар, Мариет Анзауровна. *Остались адыгами*. *Этнографические исследования*, Майкоп: Адыгейское республиканское книжное издательство, 2007, 88 с.
- Итоги Всероссийской переписи населения 2010. Том 4. Национальный состав и владение языками, гражданство, Майкоп: Федеральная служба государственной статистики Территориальный орган Федеральной службы государственной статистики по Республике Адыгея, 2012, 434 с.
- Канитцъ, Феликсъ Филиппъ. *Дунайская Болгария и Балканскій полуостровъ*, С.-Петербургъ: Типографія Министерства путей сообщенія, 1876, 362+7 с.
- Котляков В.М. (ред.) *Географический энциклопедический словарь: географические названия*, издание третье, Москва: Научное издательство «Большая Российская энциклопедия», 2003, 904 с.
- Милојевић, Милош С. *Путопис дела Праве (Старе) Србије*, Београд: Државна штампарија. св. 1, 1871, 218 с.
- Милојевић, Милош С. *Путопис дела Праве (Старе) Србије*, Београд: Главна српска књижара. св. 3, 1877, 240 с.
- Республика (Россия), https://ru.wikipedia.org/wiki/Республика_(Россия)
- Сафронов, А.В. Бассейн Кубани, СС BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=15029839
- Стојанчевић, В. Стара Србија, Даница, српски народни илустровани календар за годину 1997., Београд: "Осветљења", Вукова Задужбина, 1997.
- Территориальный состав России, http://kcbux.ru/Statyy/ZA_zizny/za-016_karta-RF.html

Эе ЕКОНОМИКА

Физическая карта республики Адыгея, http://russia.auto-maps.com/physical_map_ of the republic of adygea/

Численность постоянного населения по муниципальным образованиям и населенным пунктам Республики Адыгея по состоянию на начало 2015 года, Майкоп: Федеральная служба государственной статистики — Территориальный орган Федеральной службы государственной статистики по Республике Адыгея, 2015, 11 с.

34 ЕКОНОМИКА 😜

Vol. 62, july-september 2016, № 3 P. 35-46

Borivoje B. Prokopovic¹ Bratislav B. Prokopović² Business school of Nis, high school – Nis Živojin B. Prokopović³, Business school of Nis, high school – Nis ORIGINAL SCIENTIFIC ARTICLE doi:10.5937/ekonomika1603035P Received: Jun 29, 2016 Accepted: Septembar 9, 2016

QUESTION ABOVE ALL QUESTIONS FOR SERBIA IN 2016 IS THE REFORM OF THE STATE-OWNED ENTERPRISES

Abstract

No matter how much we try, not everything depends on us, because we are part of the world - the global economy. But just because of that, we have to be clear about this, what is our real core problem: whether the state as "too big consumer", as "soft as income," or something else. In our country today is more than a debate on the consolidation of the measures of growth and development, which is also rational to ask a question the presence of Serbian strategy, or whether the research and the experience of others in this area.

It is generally known that the market economy is an indispensable element of any well-ordered society, and Serbia at this point did little steps to get closer to such an economy than it was at the end of the previous government. The only thing that has been done is that it was started - not complete - financial consolidation, which is a necessary, because it is inevitable. However, fiscal consolidation is not reform, because it does not represent the transformation of the economy and society.

In the center of each of the market economy and well-ordered society must be an individual, and an individual who cares about itself and shall bear all the consequences of their decisions, and thus the responsibility for them. For such a society apply firm rules of the game which is not carried out, and within each of them take care of themselves and their environment.

The choice we are facing today in the Serbian society is a choice between establishing a full market economy and promoting various forms of pluralism in property relations

Key words: Economic growth, strategies, investments, state-owned enterprises, transition, fiscal consolidation, the IMF

JEL classification: 010, 012, 040, E13

¹ boraprokopovic@gmail.com

² prokopovicb@yahoo.com

³ z.prokopovic@gmail.com

ПИТАЊЕ СВИХ ПИТАЊА ЗА СРБИЈУ У 2016. ГОДИНИ ЈЕ РЕФОРМА ПРЕДУЗЕЋА У ДРЖАВНОМ ВЛАСНИШТВУ

Апстракт

Ма колико се у свему трудили, не зависи све од нас, јер смо део светске - глобалне економије. Али, баш због тога, морамо бити начисто са тим, шта је наш прави суштински проблем: да ли држава као "превелики потрошач", што "преслабо приходује", или је нешто друго у питању. У нас се данас више дебатује о консолидацији него о мерама раста и развоја, због чега је, исто тако, рационално поставити питање присуства стратегије Србије, односно има ли истраживања и искустава других у том домену

Опште познато је да је тржишна привреда незаобилазан елемент сваког добро уређеног друштва, а Србија је до овог тренутка учинила мало корака да би била ближе таквој привреди него што је то била на крају претходних влада. Једино што је урађено је то да је започета - не и завршена - финансијска консолидација, која јесте неопходна, због тога што је неизбежна. Али, фискална консолидација није реформа, јер не представља преображај привреде и друштва.

У центру сваке тржишне привреде и добро уређеног друштва мора бити појединац, и то појединац који брине сам о себи и сноси све последице својих одлука, па тиме и одговорност за њих. За такво друштво важе чврста правила игре која се дословно спроводе, па се унутар њих свако брине о себи и свом окружењу.

Избор пред којим се данас налази српско друштво јесте избор између успостављања пуне тржишне привреде и афирмације различитих облика плурализма у својинским односима.

Кључне речи: Привредни раст, стратегија, инвестиције, државна предузећа, транзиција, фискална консолидација, ММФ...

Introduction

Aleksandar Vucic's victory in the recent elections provided a mandate to continue with even more intensive policy of European integration, and all difficult reforms. Achieved monopoly of his political party on the political scene guaranteed him that there would be serious earthquake. We should, however, bear in mind that the social challenges have yet come from the sphere of economic uncertainty.

The purpose of his previous government was to reduce the budget deficit to 1.5 per cent in the future and how we see (slowly but surely), he realized. Also, the aim was also to be disposable savings of public enterprises convert (transform) into permanent, and that these companies begin to record continuously gain and loss from becoming a factor supporting public policy. The achievement of these objectives would be to avoid the two-year budget deficit trajectory so called zig-zag shape. It should be noted that the government has put a lot of effort in order to reduce it permanently. Having recently frequent auditing (IMF) estimates of GDP growth, and that the growth in 2016 will be higher than the 2.5 percent achieved, the government can be satisfied. But, judging by

36 ЕКОНОМИКА 😜

what the boss said the World Bank Office in Belgrade, that is not enough, because in order for Serbia to reach the level of development of the European economy it is necessary to store the annual growth to be over three, four or more percent. The author agrees with the view of the gentleman from the World Bank, because only such an increase in Serbia will be able to get closer to the EU and become an equal member of this integration.

It is notable that the government is making great efforts to improve the situation caught in the economy (open new factories, roads, schools...), that the last two years due to flooding and natural disasters in particular were difficult to establish good neighborly relations and international, Serbia to acquire a new reputation in the world, but much remains to be done to Serbia was organized state in which affairs of state carry strong institutions. Namely, Serbia still has a large deficit (trade, budget and current account deficit) and the question is whether he can in the next 3-4 years to achieve an average growth rate of 4 percent per year, or increase of about six billion in relation to GDP the end of 2015, to the extent necessary according to our estimates for modest growth standards, stop growth of public debt by the end of 2018 and reducing the budget deficit to a sustainable three percent of GDP. This therefore has a huge ratio of debt to GDP, so it is little on the horizon which leads to some positive expectations.

Since the measure of the validity of the economic system and policy shows the total rat GDP, the Serbian government:

- would have to mobilize all local human, natural and material resources to build an economic system with a distinctive development policy and the priorities clear and thus create conditions for conducting adequate current economic policies that will encourage domestic private investment and increase economic activity.
- should speed up the solution of problems inherited in the past related to state-owned companies - that do not pay their electricity bills, taxes and contributions thus exerting indirect pressure on the budget and other public enterprises.
- should create a favorable environment for increased investment and
- should be in everything, in terms of commitments to meet the demands of the IMF.

Public companies, the biggest challenge in 2016 year

The biggest flaw in the economic politics of Serbia in the previous period was the lack of progress in settling the situation in the public sector, without which no work is not successful settling of public finances, which should not be reduced to mere savings and layoffs. This problem indicates a permanent Fiscal Council, repeating that public companies seriously jeopardize the budget of the Republic of Serbia. In fact, it has become a common practice that the problems of state-owned enterprises for years, "swept under the carpet", it would then be necessary at some point emerged as the (unintended) expense.¹

We believe that Serbia could count on the effects of fiscal consolidation only for the next few years', that her time of need for the reform of state-owned enterprises. The biggest risk for the public finances are unreformed state-owned enterprises. Reduction of salaries and pensions was made easier part of work on fiscal consolidation, while arranging public companies left for the next two years, as a far more difficult job. According to some sources, this sector will be reformed much longer than at first thought, because it is a "tough nut" fiscal consolidation, and therefore the author of the paper warns that in the absence of their reforms may result in the cancellation of previous good results this area. There are opinions² that the author also agrees with, that for the reform of these companies it would take at least three years, during which:

- the companies should be reformed so that the prices of their products / services can establish a market;
- the problem of surplus labor in them should be solved; and
- the salaries of these companies reduced to an optimum level.

At the same time, the author on time alerts responsibility on the necessity to take some concrete, and necessary step to stabilize the business and the work of public enterprises in general. For this purpose, would urgently be organized:

- the introduction of corporate governance in all modeled on the private sector and
- strict control of their business activities in the future.

The recent adoption of the Law on Public Enterprises, which essentially alternatively regulate business owned by the state, is a step in that way. However, one of the problems standing on the way are public enterprises (which are many) within the jurisdiction of local governments. The government directly follows the successful business and working 36 public companies, which are under its jurisdiction. Among them, however, there are examples of successful operations (Post, AMS), but the others should also behave like private, to take account of the country, so that we get to see them that it itself, as well as public finances are better. Because it was happening earlier that it was proclaimed "success" if a public company takes over the job out its activities. Examples include attempts to rescue smaller public companies from bankruptcy, merging their larger system, which cost is not avoided, but only directed to taxpayers, which of course, was not a good move.

It should be noted that in 2015 made strides in terms of the fate of 144 companies in restructuring, which is a year and a half ago could not even imagine. According to the data from the Agency for Business Registers just the companies in the restructuring largely contributed to overall poor result of the economy. Its net loss at the end of 2014 amounted to 132 billion dinars, out of which 70 billion accounted for losses on restructuring companies.

On the whole, 2015 was a year of breakthroughs in the reform of public enterprises, but these were not steps substantive nature, but rather organizational character. Some milled into pieces (EPS and Railways), which was the first, but insufficient step. And, when it comes to the 17 strategic companies, out of which in 2016 a dozen others, they were supposed to find solutions to this process was finally completed. It was the announcement that some of these companies (RTB "Bor", Resavica, Railways, Srbijagas and EPS), and in the future to remain on the state budget. In fact some of these companies can have something positive - that one (as 2015) years have elapsed with no additional budget money for some of these companies - but the problems are not thereby solved permanently (case "Resavica" and RTB "Bor"), because these companies have since their arrival to returning the money in the budget and to invest. Therefore, the Fiscal Council constantly stressed that it is still uncertain whether it will be until June (in the

ЕКОНОМИКА ЭС

future), some of them able to operate sustainably on market principles, or they will go bankrupt, and that the state will continue to directly or indirectly helping their business. According to the analysis of the Ministry of Finance, if all 11 strategic enterprises left in state ownership, it would cost the budget of 2017. Serbia for more than 200 million euros per year, and what is worse, seriously questioned the success of the fiscal consolidation started...³

From 17 strategically important enterprises, which have received the 2015 extension of protection against forcible collection of creditors, was resolved status for 6 of them, mainly through bankruptcy or through a prepackaged plan of reorganization (prepack plan), which is heavily indebted companies deal with the banks about the relaxing of credit obligations to the company caught his breath. The remaining 11 companies (most problematic), until June 2016, feared for their fate, because it did not appear anyone (strategic partner or buyer) designed for the solution of their problems. ⁴ Discussing the analysis show that the RTB "Bor" (might be) could be profitable with the involvement of professional management, and dismissing a redundant employee, or with additional working capital, but concrete progress in the last time there was. And for "Resavica" are made of similar cost-benefit analysis, so that by the last day there was no clear plan for the future fate of this company. It was hard to find a solution for a number of companies that have had a relatively good chance of being privatized, or that they find themselves strategic partners of (PKB and "Galenika"). Since an additional period of one year is not used in the right way, it became uncertain whether these companies will be able to market from June to do business.

And finally, after the enormous effort of the Ministry of Economy, it happened that not one of the 11 strategic enterprises, which as of June no longer have the protection of the state from the creditors, went bankrupt. Specifically, the government together with these companies ensure that they continue the economic life and in the future, or if none of them cannot count on state subsidies (with which the ceased even 2015). The big problem was solved by making the 7 companies to make it through the prepackaged plan of reorganization (prepack plan), while the other made an agreement with creditors to delay payment of their claims

The largest number of listed companies will have to reduce the number of employees, and many are already offered social programs. Otherwise, all 17 protected restructuring companies had a total of 3.5 billion historical debt, and employing 22,000 people. These companies have the potential to represent Serbia, which is why (we think) with their putting into operation Serbian economy, well-acted.

What still confuses economists is jammed with the reform of public enterprises. Thus, for example. EPS has not yet been replaced by a collective agreement, which was supposed to be a prelude to the dismissal of surplus workers, whose deadline for adoption expired on 31 December 2015. As regards the railways, reducing the number of employees is planned to start in 2016, but that process has been delayed and has not yet started, and out of work at this company, should be kept 2,700 people. Planned for earnings in the Railways will not be sufficient if the announced layoffs fail or be implemented too late, it will be an unexpected expense that will need somewhere to take cover. At least has been done to reform the company "Srbijagas", which has not progressed beyond the principled plans. Even painless division of the company (according to the request of the European Energy Community) has not been implemented because the company is

granted only legally, while essential pampering for two separate units is imminent, and the deadline was the end of June 2016.

No investment no economic growth

A prerequisite for the successful implementation of the agreed development policy is consistently sustainable macroeconomic stability and the stability of the fundamental factors of economic environment. The right way to do this is a clear development strategy based on full use of existing (national) resources and the proper direction of domestic and foreign investment, while the consolidation of public finances sled natural way. Otherwise, it is known that the government is not directly factor in economic growth, and that her job is to define rules and create an environment that will cause reaction of investors and entrepreneurs. Because not all in the attitude of "stabilize, privatize and liberalize", but in a good mixture of everything around: the budget, tax, monetary, credit, industrial, commercial and other policies, and the right regulations

For Serbia to ensure sustainable growth and continued financial consolidation, a key problem is the lack of investment.⁵ In order to eliminate this disadvantage (lack of investment in Serbia amounts to three percent of GDP), is required to have higher their inflow and accelerate the initiated structural reforms and a fair, transparent and predictable environment, 6 because only in such conditions can be provided and the expected IMF support, the World Bank and EBRD. ⁷ A common stumbling block in the implementation of the investment policy are: cadastral solutions, public companies and the work of local governments, which is essential surrounding of real business, in terms of creating a predictable business by establishing a sound legal framework, the rule of law, the literal application of the adopted laws, simplified procedure system solutions and respect, taking account of the essence rather than the form and the like. In this regard, the regulations in force shall be applicable and uniquely interpreted, not different from one to another authority (even in different departments of the same service). It must not be allowed to the investor from counter to counter adjusts often incomprehensible and complicated procedure, a poor town planning solutions procedurally be matched with required procedures.

Anyway, in 2015 the economy demand for loans was weak, because it is exhausted in 2014, when the state gave subsidies for new borrowing. Due to the then low-cost loans to the economy became over-debted, which has room for further borrowing seriously narrowed. Credit to the economy for a long time standing in place, so that annually reduce or increase the percentage of the eye, which affects the overall impression that there is no economic growth because there is no investment. The banks are, therefore, often point the finger, because they prefer to, security work, put their money into state debt securities and repo operations of the central bank, but in corporate loans

A frequent response of bankers to criticism is (not lending enough to the economy), low investor demand, which is why there is no economic growth. In this sector, too, say that the roll call on them unfounded⁸ Otherwise, it is true that due to insufficient demand for loans, the banking sector is placing more money into state debt securities and repo operations of the central bank where she withdrew the excess non distributed money banks.⁹ We believe, however, that it is realistic to expect that in 2016 the market

40 ЕКОНОМИКА 😜

increased bank loans to the economy, but the fear is that it will still feel the burden of problem loans in repayment, as well as the dominance of credit refinancing requirement for working capital compared to investment loans. Our expectation is that the momentum of the economic recovery plan and investment bank loans begin to grow.

We point out that the real indicator of economic growth independent private investment and one of total investments often obscures the real picture, because they are included in the mass and one state. Please note that the data on private investment blurred and "Fiat", which continues to receive state subsidies. And, our analysis shows that since 2009, private sector investments are falling, which is not good.

It should be noted that, due to the large difference between inflation and interest rates will be in 2016 expect a further fall in the price of money. In 2015 slightly increased bank placements in repo operations, so that the average balance of these loans in the first half of the year amounted to 12.8, while the other 44.9 billion. The current status of bank placements in repo operations was slightly lower and amounted to 26.7 billion dinars, which is the result of lowering the benchmark interest rate of NBS, changing referent interest rate applied by the repo operations (which is the main instrument of monetary policy) affect the movement of other interest rates. In this way, the reduction of the benchmark interest rate affects the reduction of interest rates on loans, which opens the space for the increase in bank lending.

Banks also use investments in government securities over the long term (10 years), but the current state of local currency government securities of all maturities amounted to 627.1 billion dinars, which in 2015 increased to 84.5 billion dinars. ¹⁰They are the greatest inventors in the paper, becuse when the liquidity funds are needed, it could be sold on the secondary market or pledged for a loan from NBS.

Continuation of cooperation with MMF

We have no intention to further discuss the issue: whether or not the IMF to Serbia? We emphasize the indisputable fact concerning the functioning of these financial institutions, and that IMF formally entering into voluntary agreements with the two countries, according to their call for help; the conditions attaching to debtors countries are moving towards providing liquidity for the restoration of borrowed money; The Fund's profit institution that works in the interests of the majority owners of capital; and interest is the placement of funds and ensuring the owners get. Stable and financially disciplined countries do not seek help from the IMF, but to make only those that are in financial trouble. Service users of the Fund is not the final word economists from Washington, but commit themselves memorandum on everything from looking for, and our cooperation with this institution will not be specifically praise. But, as it is with regard to the implementation of economic policy (through previous reviews of the Fund) was positive, to emphasize and welcome the public.

For Serbia's cooperation with the IMF was a necessary evil, because it was in a recession and the economic, social and social crisis, which is why she was indispensable mentor (the Fund), which was to ensure macroeconomic stability and strengthen the confidence of foreign investors. Otherwise, the arrangement of Serbia with the IMF is envisaged that the loans provided by these institutions back debts, while the remaining have the money set aside for investments and according to the instructions of the

Fund. Otherwise, the arrangement with the IMF, Serbia wanted to send a message to a responsible economic policy, and since the positive attitude of the Fund directly related to the risk assessment of the country and conditions of borrowing on the international capital market, and it should be to capitalize.

With the technical government and NBS agreement was reached on the policies needed to be implemented for the completion of the fourth and fifth revision of the arrangement. The agreement is based on the assumption of strict control over expenditures, while continuing inflow of revenue desired pace. It is clear, therefore, that the saving or so belt-tightening continues. And after the fourth and fifth revision of the precautionary arrangement, the items on which to save the most are still public sector wages, pensions, and reduce agricultural subsidies and public TV service. Otherwise, the key challenges are to ensure that the results are permanent and sustainable; (Continued growth and to a higher level, the stabilization of the fiscal progress and a significant reduction in debt).

Otherwise, it should be noted that the government through the arrangement with the IMF managed to put under control the budget deficit, bringing the difficult decision to reduce pensions and salaries, and an increase in excise tax and the price of electricity. At the same time: revenues increased significantly through better tax collection; conducted a strong fiscal adjustment; reduced external imbalances; deficit last year nearly halved and amounted to 3.7 percent, while the current account deficit was lower by a fifth and fully covered by foreign direct investment. In the future program should focus on two areas, ie the reform of state-owned financial institutions and the implementation of strategies for addressing problem loans. And when it comes to reducing the number of employees in the public sector in the Fund are (despite delays) are satisfied with the results. Specifically, as explained in the final conference Ruf (in front of the IMF), the government program with the Fund are to further reduce the number of employees, but also improve the quality of public sector services.

Although elections are, as a rule, started slowing down, we believe that in this case the election of a new parliament and the formation of a little alternatively government will seriously slow down the economic reforms started. And the IMF was not worried about the election, although the score of the fourth revision of the arrangement was delayed after the elections and the formation of a new government.

Finally, it should be noted that Serbia is not in the future will not be without cooperation with the IMF, because it is economically strong enough to implement the reforms itself, and as a major borrower has little room for maneuver to decide on restrictive measures these institutions. But one-sided jigs and universal medicine Fund should unreservedly accept, because the practice has shown that their strict enforcement led to a deepening of the crisis, the problem of a social nature, etc.

The good results should be preserved in 2016

The best choice for our country that holds the European course of Serbia and the government must remain committed to this path, with the urgent resolution of many problems, especially those related to the economy. The commencement of accession negotiations with the EU was preceded by the EC report on the progress that is (it must be said) was very positive. But before the government of Serbia in the forthcoming period

42 EKOHOMИKA **ЭС**

a difficult job because there is always a constant large number of problems that must be urgently addressed. According to the author of this paper, the economic development should be the focus, and above all.

It is emergant to get rid of the narrow view of the world and the inability to accept the upcoming changes. ¹¹ The Government of Serbia without delay should focus on world-oriented view, which is in everything relies on the use of the best possible approach and with the involvement of the best personnel. In this regard, the view of the author could be seen as a form of betting on future outcomes, with the belief that attitude is very important to have a global understanding of how their country, economy and companies, as well as the ones from the world environment.

It is indisputable point out that the staff of the previous government was very educated and smart people, but all this still has to be seen as part of a process, which can be said that the system resembled a kind of transitional euphoria (no procedure, institutions, etc.).

It happened so that the transition is run by the rules that should have been previously established. One of the observations that catches the eye, is to enter the new system did not rest on the basis of various forms of entrepreneurship, including private, and since there was not, that role was taken over by the current government with a view to the longer and stronger hold.

The author does not deny the possible positive future, but it is evident that the authorities in whatever form of the changes occurred in the previous regime, not only was not supported, but it even inappropriately refered to some form of positive entrepreneurship.

The Government of Serbia currently has a very unpleasant business, and perhaps now one of the most difficult tasks. The big challenge for the government in 2016 and still ensuring that the achieved results are permanent and sustainable; to continue to grow and at a higher level; that fiscal progress is durable and sustainable, because it is a sure guarantee that external debt can be significantly reduced.

For the author there is a fear that there will be more problems, because the circumstances in which we live are less and less adapted to the needs of the economy and its development, and there are still more those of the other domain values (policy etc.). Most important, however, to governments and economic actors of the system is to be able to recognize and understand their condition, and that the moments of the disturbance acquire skills, as they may, among other things, help to discern when and what changes are needed, as well as further assistance.

The greatest "enemy" in the treatment of disorders resulting from the loneliness and isolation of operation in terms of the current changes, precisely at the moment when it is necessary to join forces and efforts to overcome them faster. We, the economists, as well as other businessmen, have more to deal with what the participants of the economy and economic system should be. They should constantly ask what they lack and what interests them, what they should do, apart from giving lectures, making them pomace various information and what we discuss their difficult situation. With more knowledge and skills, economic disruption is still possible to effectively and permanently cure. It is time, therefore, for a new beginning.

Conclusion

On the basis of everything put in the paper we could carry out some findings and conclusions, as:

- Today Serbia nurtures and builds market system. It is politically and economically stable, it is the largest and has the strongest economy in comparison with other parts of the

former Yugoslavia. It has made significant progress in implementing structural reforms that have begun to give the first results. In this regard, particular progress was achieved in the area of fiscal consolidation, so that the Serbian economy is largely recovering from the recession and certainly entering a phase of prosperous growth.

- Contemporary time is characterized by the time of sense, knowledge, IT, economics and capital, and everything that happens in the world, including in the economy is being filtered through the new matrix. And the results show that our economy is very vital and able to exist in the world and that it is exactly our vital resource and, if we know that the economy is now the most dominant software, the government should know that and use them as a serious resource.
- In the conditions of our transition, which has been lasting for a long time, public affair is more than desirable. There is no dialogue among intellectuals. And, when there is no dialogue (or there are no intellectuals), there is no public. Although it is known that the public is an institution that seeks a balance between public and private interests, when it lacks there is no coherent discussion and problem solving.

References

- B, Krstić., E, Kahrović., Bussiness rocess outsourcing as a tool. For improving enterprise efficiency, "Ekonomika", Niš, no. 3/15.
- B, Krstić., M, Krstić., Models of irational behaviour of household and firm, "Ekonomika", Niš, no. 4/15.
- B, Ristic, S, Tanaskovic., (2013), Competitive position of Serbia in 2013. Accordding to the World Economic Forum, The Foundation for the Advancement of Economics, Belgrade.
- B.B, Prokopovic., Time for a change in consumer models, "Екоnomika", Nis, no. 2/14.
- D, Babcock., (1910), Management Strategies for the Cloud Revolution, McGraw Hill, New York.
- D, Dujava., J, Drab., How different monetarx rules lead to different performances during the case of the Western Balkan countries, "Ekonimka", Niš, no. 4/15.
- D, Kaličanin., M, Todorović., Interactions between business and financial strategies in Serbian companies, Economic annals, 203/2014.
- D, Momirovic., M. Jankovic., M. Randjelovic., Investments, world economy and poor countries, "Екоnomika" no. 1/16.
- D, Todic. (2008), Environmental management in conditions of globalization, Megatrend University, Belgrade.
- Inflation Report (May, 2013). (Http://www.nbs.rs/export/sites/default/internet/latinica/90/90-5/inflation-maj-2013.pdf).
- J, Bogićević., V, Domanović., Control in function of fpreign subsidiary performance evaluation, "Ekonomika", Niš, no. 1/16.
- J, Pallant., (2011), SPSS Survival Manual: A step by step guide to data analysis using SPSS, Open University Press, McGraw Hill, Berkshire, UK.
- J, Radović-Stojanović., The cyclical character of economic policy in Serbia 2001-2012., Economic annals, 202/2014., Belgrade.

44 EKOHOMИKA **ЭС**

- K, Softic, B, Ilic, and M, Maksimovic., (2012), Monetary strategy and the main objectives of monetary manner policy of the central Bank of Serbia, "Economics", 58 (4): 129-137.
- N, Zakic., (2009), Innovation and business process management, Foundation Andrejevic, Belgrade.
- S, Cvetanović., D, Despotović., Izvori finansiranj razvoja zemalja Zapadnog Balkana u periodu 2001-2012. godine, "Ekonomika" Niš, br.3/14.
- S, Puric, D, Jerotijevic., The Structure of Exports and Imports as a Limiting factor in Improving the Competitiveness of Republic Serbia, "Ekonomika", Nis, no. 3/15.
- The World Bank (data), available at http://data,worldbank.org/
- Z, Prokopovic, M, Nikolic., K, Prokopovic., (2012), protection of the ecosystem approach and sustainable development report at the International Conference (sponsored by the Ministry of Education) "Environment and economy adaptation to climate change", Belgrade.
- Z, Radosavljević., M, Radosavljević., A, Anđelković., Nužnost eliminisanja klasičnih i uvođenje novih koncepata u strateškom menadžmentu i biznisu, "Ekonomika", Niš, br. 1/15.
- A, Prascevic., (2007), Selection of monetary policy rules, Economic Thought, 40 (1-2): 1-14.
- A, Stankovič., S, Ignatjeva., V, Menšikovs., Higher education's contribution into economic performance and innovativeness of Latvia: exploratory research, Economic annals, 202/2014, Belgrade.

Endnotes

- Such was the case with the powerful strengthening expenditures, which have been produced largely by several one-off commitments that have not been budgeted for 2015, but at year's end was announced that the state (without budget) take over their repayment (Srbijagas obligations under NIS-u, burdens to military pensioners and poorly planned subsidy payments to agriculture), which increased the expenditure budget by 43 billion pounds.
- 2. On this issue Vladimir Vuckovic often stated his opinion, as a member of the Fiscal Council of the Republic of Serbia.
- 3. Fiscal Sustainability achieved results and success of the entire fiscal consolidation depends critically on reforms largest public companies that, according to available data, do not go according to plan. Further delay the job and possibly shifting their huge debts to the state would be overturned all previous results for the healing of public finances.
 - The deadline for their protection is determined by the decision of the Government of Serbia and was not extended. After the expiry of the deadline 28 May the company should be subject to debt collection by creditors. However, this date is not disrupted their business, because the Ministry of Economy (in cooperation

е ЕКОНОМИКА

with other relevant ministries and state institutions) initiated activities with the aim of defining a sustainable solution after this period and successfully resolve their status. These are the companies which employ more than 21,000 workers, and the government last year provided the source is acknowledged to all those who want to take severance pay - social programs.

- 4. The deadline for their protection is determined by the decision of the Government of Serbia and was not extended. After the expiry of the deadline 28 May the company should be subject to debt collection by creditors. However, this date is not disrupted their business, because the Ministry of Economy (in cooperation with other relevant ministries and state institutions) initiated activities with the aim of defining a sustainable solution after this period and successfully resolve their status. These are the companies which employ more than 21,000 workers, and the government last year provided the source is acknowledged to all those who want to take severance pay social programs.
- 5. Here in the first place we think of foreign direct investment that surely bring: knowledge, technology, access to new markets and, most importantly, investment in human resources. Otherwise, until the end of last year in Serbia was operating about 130 foreign companies that have invested more than 23.5 billion euros, generating 18 odstto GDP and employ more than 97,000 people.
- 6. For this it is important to build institutions in Serbia and work on its personnel strengthening and establishing procedures that will depend on the individuals who implement them. In this regard, NBS creates stable conditions for investment by keeping inflation under control and the relative stability of the exchange rate
- 7. The head of the European office of EBRD in Serbia (Daniel Borg) shows that this institution will continue to financially support the development of the financial sector and private companies in our country, there will be a partner to the government in the implementation of the restructuring of public enterprises and improving the business climate.
- 8. Branko Greganovic, CEO of NLB Bank, according to the bank first to give loans to the economy, but there is investment demand. "We have a liquidity reserve and we want to employ the productive way or no investment demand."
- 9. Recently, Jorgovanka Tabakovic, Governor of the NBS, said that banks in repo operations are run tens of billions of pounds. How to illustrate the substantial funds in that bank last year, when the state subsidized loans, the economy reached more than 130 billion dinars loans. According to its assessment, despite the declining interest rates, there is room for both corporate banking.
- 10. Interest rates on government securities currently range from 2.94 per cent per annum (for maturities of three months), up 12.99 percent year on year (to maturity of ten years). In 2015, these rates were significantly reduced (1.24 points for maturities of seven years and 4.3 per cent for maturity of five years).
- 11. D.A. Aaker., Developing Business Strategies, (5th edition), New York: John Wiley&Sons, 1990. A. Byrne et al., "Borderless Management," BusinessWeek, 23rd of May, 1994, pp. 24. to 26.

46 ЕКОНОМИКА ЭС

Djurdjica Vukajlović¹ Miodrag Brzaković²

University Business Academy in Novi Sad, Faculty of Applied Management, Economics and Finance, Belgrade

Nikola Ćurčić³

University Union- Nikola Tesla, Faculty of Management, Sremski Karlovci SCIENTIFIC REVIEW ARTICLE doi:10.5937/ekonomika1603047V Received: July 29, 2016 Accepted: Septembar 9, 2016

ASSESSMENT OF EMPLOYEES COMPETENCES CARRIED OUT BY DIFFERENT MANAGEMENT LEVELS

The success of any organization depends on the human resources, their knowledge and skills, and their competencies. Competenceis are developed for the needs of business and the organization in which the individual is working. The aim of the study was to determine how the managers of different levels judge competencies of their employees. The results showed that managers value the most employees eager to learn something new in order to improve knowledge and skills, while the least valued competence is planning and verification of the task before relalization in all of its stages. The results also showed that managers of different levels variously estimate certain competence of their employees.

Key words: competence, human resources, employees, management

JEL classification: M 500, M 540

ОЦЕНА КОМПЕТЕНЦИ ЗАПОСЛЕНИХ ОД СТРАНЕ РАЗЛИЧИТИХ МЕНАЏМЕНТ НИВОА

Апстракт

Успех сваке организације зависи од људских ресурса, њихових знања и вештина, односно од њихових компетенци. Компетенце се развијају за потребе посла и организације у којој индивидуа ради. Циљ рада је био да се утврди како менаџери различитог нивоа оцењују компетенце запослених. Резултати су показали да менаџери највише цене када запослени жели да научи нешто ново како би унапредио знања и вештине, док је најмање вреднована компетенца запослених планирање и провере задатка пре извршења у свим фазама обављања задатка. Резултати су такође показали да менаџери различитих нивоа различито цене одређене компетенце код запослених.

Кључне речи: компетенце, људски ресурси, запослени, менаџемент

¹ vukajlovicdj@com

² miodrag.brzakovic@mef.edu.rs

³ nikolavcurcic@yahoo.com

Introduction

For an organizations operating in the ever-changing environment it is extremely important to quickly and effectively implement new business strategies. Employees in an organization are the resource that start changes directing other resources and environment in the direction of initiation and adjustment to the changes. In this sense, competence can be used as a powerful communications tool that transforms vision into people's behavior in a way that they understand and implement (Sanchez & Levine, 2009). For organizations it is very difficult to determine what are the competence of employees that will help managers to successfully achieve the goals of the organization. The ability to assess the compentence and determine the dampener of competency skills it is extremely difficult, since it enables organizations to manage better the work of individual and group. Determining which competencies are relevant to different managerial functions, but also for the employees, is crucial for the development and promotion of developmental programs (Seate, Pooe & Chinomona, 2016). Looking through the history of the practice and applied research, the concept of competence has primarily been directed at managers, followed by the growth of the managerial group. In more recent practice in many successful organizations is noticable orientation on defining competencies in recruitment, rather than the traditional approach based on evaluation of knowledge, abilities, skills, derived from analysis of the work (Vujić, 2015). Every business and every job has different requirements and different characteristics, so for this reason we separate different competence of employees that need to match the requirements of the work to be performed, and managers are the ones who manage the organization and who select and lead employees to achieveing business objectives.

The specificity of human resources

Success of the organization depends on the quality of resources available to orit. If human resources are seen as a factor of production (in a broad sense), that can be their specificity in relation to other resources. Unlike other resources that are mostly easy to describe and keep "under control", with stable characteristics and (relatively) predictable, human resources are characterized by the following (Aksentijević, Avakumović & Jelić, 2010): complex to manage, complex to maintain, requires considerable attention to achieve effectiveness, they are slowly made, but fastly destroied, they are highly specific (at the same time there is a surplus and shortage of human resources in most organizations). Human resources for its specific characteristics are extremely difficult to be managed, but on the other side on their quality depends the success of a business of an organization, which depends on three sets of expectations (Kermally, 2004): expectations of the organization, expectations of employees and the expectations of the customers. In modern conditions of business leadership and knowledge are becoming the most valuable resource of the organization (Stojković, Davidovac & Stojmirović, 2014), and that is why leadership characteristics need to be mastered by the manager in order to lead employees to behavior, values, attitudes, characteristics and skills that are essential for achieving the goals of the organization.

When one person becomes part of the organization, its abilites develop through the effective exchange of different development efforts, such as training and periodic evaluation of the performance (Bartol & Martin, 1994) administered by managers of different levels. To learn new skills and develop expertise and knowledge, managers and employees must make a particular effort to put the development of employees at or the top of the priority list (Nelson & Economy, 2005).

Organization has at its desposal human resources from internal and external sources. The internal are all employees in the organization, but it should be took into account the fact that this is a very volatile category that depends on hiring new people, retired employees, layoffs, and so on, we should bear in mind that an employee in the course of their employment improves knowledge and skills (Bogićević, 2004). Labour productivity depends on many external, internal (in relation to the organization) and psychological factors that can at the same time affect the work motivation. Certain conditions of working environment, such as management style, work organization, interpersonal relations and many others, can shape the relationship between the particular work motivation and labour productivity (Micić, 2015).

Any meaningful activity has to be managed, and each management seeks a goal which is why it is necessary certain resources to be provided. The goal of human resources management is achieving success through employees, achieving the following goals: organizational, functional, social and personal (Šušnjar & Zimanji, 2006).

Competency of employees

The very idea of competence has the meaning of juristiction, abilities, skills, expertise, responsibilities. Several authors in the field of human resources management (Wilkinson & Marchington, 2005) considere and that the term "competency" consider representation of different content, starting with the juristiction, personal characteristics, attitudes, values, interpersonal skills, through professional skills and knowledge.

Competence represent the capacity of individuals to develop their behaviour, adequate to the needs of the business, which are guided by the parameters of the organizational environment to achieve the desired result. Competence is a mix of knowledge, skills and attitudes (Krishnaveni, 2013). HR needs to help all other functions of the organization and it has constantly to work on improving its own systems, processes, practices and skills, by providing relevant internal and external training and expertise (Deb, 2006). In this way competence of employees promotes and harmonise with the requirements of the organisation.

Competence includes a number of procedures, skills and capabilities, attitudes, beliefs and values, preferences and personal characteristics, selfperception and motivation which make the numerous requirements of business effectively fulfilled (Rubin et al., 2007). Competence that an individual possesses can be developed through formal training or experience. Those develop through education are considered more general competence, given that they are usable in multiple organizations through a variety of jobs. Competence generated through experience are more specialized and often associated with the organization in which they have developed and represent value to the organization (Becker, 1983). Through specifying competence in this sense, we

need to approach in terms of factors that directly or indirectly affect the job performance or individual.

Competence include a specific set of knowledge that traditionally can be seen as: computing, communications, economics, mathematics, science, physic, quantitative reasoning, social sciences etc. Eight competences are important according to EU standards (Praštalo, 2010): communication in the mother tongue, communication in foreign languages, mathematical competence and basic science and technology, digital competence, learning to learn, social and civic competence, sense of initiative and entrepreneurship, and cultural enlightenment of expression in the field of culture. All competences listed are considered to be equally important, because each of them contributes to creating a successful life of the individual in society. Competence can refer to the behavior of a particular individual, how he behaves and responds to the environment during the execution of their business (Robotham & Jubb, 1996).

It is clear that apart from having the basic skills necessary to perform a specific task, it is needes a generic and transferable (transversal) competence that will provide all of the individual set of skills, knowledge and attitudes which are related to individual situations, in order not to feel inferior in these situations. The ability to use skills in a given context is called application or use. Use one skill that is acquired through education or training is the application of skills of human knowledge. Potential employers are interested in what someone does and how well he does it. However, they are particularly interested in whether someone can apply the knowledge and skills acquired through education at work.

Numerous studies dealt with the managers of different levels and their respective roles in human resources management (Gilbert, Winne, & Sels, 2015), as well as a score of management made by employees (Sanders & Yang, 2015). In different organizations and in various countries of the world representation of competences that are considered most important is different. Studies have shown (Department of Education, Science and Training, 2002) the general skills needed for employment may include the following: communication skills, capacity for teamwork, ability to solve problems, take the initiative and manage, the ability for planning and organization skills, self-direction, capacity for learning, the use of modern technology. Personal attributes that contribute to employment can be seen as: loyalty, dedication, honesty, enthusiasm, reliability, personal presentation, rational reasoning, self-esteem, sense of humor, balanced attitude towards business and private life, the ability to work under pressure, motivation, adaptability. Competence that exhibit either through general abilities and personal qualities are something that managers need to recognize in the employee as a condition for achieving specific results in work.

Research methodology

The research was conducted as an empirical study of transversal character (intersection). The pattern was random, with the condition that the respondent has at least one employee that manages. It comprised around 300 managers from the territory of Serbia. Questionnaires are sent electronically, and it were 290 valid returned questionnaires, which are taken into account when processing data. The aim of this study

50 ЕКОНОМИКА 😜

was to determine what are the employees competences that managers most prices, as well as to determine whether there is a difference in scores of competences, made by managers of different levels.

In the sample there were 106 managers (36.6%) that manage people who also have people to manage (top management), 154 (53,1%) of managers consisted of the medium level management, while 30 (10.3%) were of those who are engaged in processes (owners of small businesses who are governed by themselves and participate in processes).

The aim of this study is to determine which competence of the employees managers most value. It was taken into account 10 variables that subjects assessed with the grades from 1 to 5 where 1 is the lowest rating (meaningless competence), and 5 the highest rating (key competence). Competence of employees who have been questioned by the selected codes of P1-P10, is represented below:

- P1 Doesn't ask for confirmation or clear instructions for each task performed. Understand the broader context of work and can independently make decisions in the scope of their own tasks.
- P2 Wants to learn something new in order to improve knowledge and skills which will facilitate current business.
- P3 Paying a lot of attention to the documentation that is part of the job, and an appreciation of his procedure is primarily in the process of work.
 - P4 Always approaches the work with a lot of energy.
 - P5 Gain enthusiasm of others forits ideas and plans.
- P6 Does not resist changes through which an organization goes, recognizes it as a positive influence to achieve the organization's business.
- P7 Regardless of the daily tasks and nature of the work, interpersonal relationship is important to him and takes care of the communication with colleagues, nurturing quality of interpersonal relationships.
- P8 Recognises that there are less important tasks that can wait for primary job or higher/emergency task to be done.
- P9 He/she doesn't execute any task without the careful planning and verification of the different stages of the completion of the task.
- P10 When he/she sees the advantage of its ideas and projects, advocates them with quality arguments in order for others to accept suggestion.

Managerial levels are divided as following, and for better viewing they are indicated as following:

- Manager/Executive (top management)-TM
- Middle management (middle-level managers, supervisors)-SM
- Line/operational management (heads of departments, managers, etc.)-LM

In table 1. in a column Mean are central values for each variable of observed depending on the internal management level respondents, as well as the overall averages. It shows that managers best assessed employees who want something new to learn to improve knowledge and skills with an average score of 3.87 (P2). The least valued (average grades 3.59) competence of employees is related to the planning and execution phases of the evaluation before the completion of the certain task (P9).

Table 1. Descriptive statistics assessment of employees competences

		N	N Mean		Std. Error	
		Lower Bound	Upper Bound	Deviation Lower Bound	Upper Bound	
P1	TM – Top management	76	3.58	1.278	.147	
	SM - Middle management	174	3.78	1.015	.077	
	LM - Line management	40	4.23	.800	.127	
	Total	290	3.79	1.079	.063	
	TM – Top management	76	3.95	.831	.095	
D2	SM - Middle management	174	3.86	.849	.064	
P2	LM - Line management	40	3.75	.707	.112	
	Total	290	3.87	.826	.048	
	TM – Top management	76	3.24	1.355	.155	
D2	SM - Middle management	174	3.57	1.038	.079	
P3	LM - Line management	40	3.30	1.114	.176	
	Total	290	3.45	1.146	.067	
	TM – Top management	76	3.37	1.069	.123	
	SM - Middle management	174	3.88	1.076	.082	
P4	LM - Line management	40	4.03	.862	.136	
	Total	290	3.77	1.072	.063	
	TM – Top management	76	3.55	1.076	.123	
	SM - Middle management	174	3.61	.972	.074	
P5	LM - Line management	40	3.40	.955	.151	
	Total	290	3.57	.997	.059	
	TM – Top management	76	3.76	1.018	.117	
D.	SM - Middle management	174	3.84	1.099	.083	
P6	LM - Line management	40	3.93	1.163	.184	
	Total	290	3.83	1.085	.064	
7.5	TM – Top management	76	3.63	1.187	.136	
	SM - Middle management	174	3.71	1.052	.080	
P7	LM - Line management	40	4.30	.464	.073	
	Total	290	3.77	1.051	.062	
	TM – Top management	76	3.95	1.057	.121	
D 0	SM - Middle management	174	3.63	.926	.070	
P8	LM - Line management	40	4.05	.986	.156	
	Total	290	3.77	.983	.058	
	TM – Top management	76	3.08	1.117	.128	
P9	SM - Middle management	174	3.55	.953	.072	
	LM - Line management	40	3.15	.949	.150	
	Total	290	3.37	1.018	.060	
	TM – Top management	76	3.74	.755	.087	
D10	SM - Middle management	174	3.62	.850	.064	
P10	LM - Line management	40	3.15	1.027	.162	
	Total	290	3.59	.869	.051	

Source: Author

In table 2. ANOVA (Analysis of Variance) it was determined by a test the existence of differences in scores of competency of employees by managers who are in different managerial level. As the extent of the existence of significant differences taken the value 0.05 (for the value of SIG. ≤ 0.05 a statistically significant difference in the scores). It is noticeable that the managers differently assessed competence P1 (Sig=0,009<0,05),P4

52

(Sig=0,001<0,05), P7 (Sig=0,002<0,05), P8 (Sig=0,010<0,05), P9 (Sig=0,001<0,05), P10 (Sig=0,002<0,05). From the observed ten variables significant difference in scores was observed in six, so that managers in the sample with different management levels differently value competence of employees.

Table 2: Differences in grades of competences of employed by different managers levels

		Sum of Squares	df	Mean Square	F	Sig.
P1	Between Groups	10.985	2	5.492	4.839	.009*
	Within Groups	325.760	287	1.135		
	Total	336.745	289			
P2	Between Groups	1.042	2	.521	.763	.467
	Within Groups	195.979	287	.683		
	Total	197.021	289			
P3	Between Groups	7.059	2	3.529	2.718	.068
	Within Groups	372.666	287	1.298		
	Total	379.724	289			
P4	Between Groups	16.930	2	8.465	7.710	.001*
	Within Groups	315.125	287	1.098		
	Total	332.055	289			
P5	Between Groups	1.440	2	.720	.723	.486
	Within Groups	285.815	287	.996		
	Total	287.255	289			
P6	Between Groups	.733	2	.366	.310	.734
	Within Groups	339.322	287	1.182		
	Total	340.055	289			
P7	Between Groups	13.263	2	6.631	6.225	.002*
	Within Groups	305.716	287	1.065		
	Total	318.979	289			
P8	Between Groups	8.830	2	4.415	4.690	.010*
	Within Groups	270.149	287	.941		
	Total	278.979	289			
P9	Between Groups	14.119	2	7.059	7.092	.001*
	Within Groups	285.661	287	.995		
	Total	299.779	289			
P10	Between Groups	9.542	2	4.771	6.558	.002*
	Within Groups	208.802	287	.728		
	Total	218.345	289			

Source: Author

In six of the ten observed variables it was noticed the significant difference in scores, and the subsequent Tukejev (Tukey) test found that managerial levels have made a significant difference in the scores. In the table 3. we can see that line/operational managers evaluated differently in comparison to top managers and middle management autonomy of employees in work and decision making (P1). The difference was observed by top managers in relation to the middle and line management/operational managers in the importance of energy with which employees access to performing work (P4). Line/middle management valued differently from midlle and top management the interpersonal relations and communication with the colleagues that employees nourishes (P7). Middle management valued differently from the top management and line/operating management employees who know how to make a priority among tasks (P8). Top managers and middle

management individually assessed plan and verification tasks before their execution (P9). Realising the benefits of its own ideas and projects, advocate it with valid argumnts in order for others to accept the proposition line managers/operating level manager valued differently from the top management and middle management level (P10).

Table 3. The difference in managerial-level grades of employees competence

Dependent	(I) Management level	(J) Management level	Mean Difference (I-J)	Std. Error	Sig. Lower Bound	
Variable			Lower Bound	Upper Bound		
	TM	SM	197	.146	.372	
	1 1V1	LM	646(*)	.208	.006	
P1	SM	TM	.197	.146	.372	
F1		LM	449(*)	.187	.044	
	LM	TM	.646(*)	.208	.006	
	LIVI	SM	.449(*)	.187	.044	
	TM	SM	511(*)	.144	.001	
	I M	LM	657(*)	.205	.004	
P4	SM	TM	.511(*)	.144	.001	
P4		LM	146	.184	.708	
	T > 6	TM	.657(*)	.205	.004	
	LM	SM	.146	.184	.708	
	TM	SM	081	.142	.836	
		LM	668(*)	.202	.003	
D.7	SM LM	TM	.081	.142	.836	
P7		LM	587(*)	.181	.004	
		TM	.668(*)	.202	.003	
		SM	.587(*)	.181	.004	
	TM SM LM	SM	.315(*)	.133	.049	
		LM	103	.190	.851	
P8		TM	315(*)	.133	.049	
18		LM	418(*)	.170	.039	
		TM	.103	.190	.851	
		SM	.418(*)	.170	.039	
	TM	SM	473(*)	.137	.002	
	SM	LM	071	.195	.929	
P9		TM	.473(*)	.137	.002	
P9		LM	.402	.175	.058	
	LM	TM	.071	.195	.929	
		SM	402	.175	.058	
	TM SM LM	SM	.116	.117	.584	
		LM	.587(*)	.167	.001	
D10		TM	116	.117	.584	
P10		LM	.471(*)	.150	.005	
		TM	587(*)	.167	.001	
		SM	471(*)	.150	.005	

Sources: Author

Conslusion

Often the question arises whether an organization needs to implement approach based on competences? The answer varies depending on the approach that the

oraginzation already adpted and how they are satisfied by it in terms of organizational benefits (Robertson, 1995). There are more and more discussion about employment based on competence, as well as lifelong learning that leads to achieving certain qualifications that are needed for certain jobs. A number of literature in the field of management has the tendency to focus on competences based on human resources (Kirton & Healy, 2009).

By analysing the competences that managers evaluate as important, the results of the research showed that the managrs most value when an employee wants to learn something new, to improve knowledge and skills, does not resist to changes, has autonomy in work. After that three competences follow: energy at work, the importance of interpersonal relationships and job ranking by relevance, which are rated with the same average score. As the least significant competence it was rated: advocacy of their own ideas, employee's enthusiasm for their ideas and plans, addressing the focus of the documentation and recognition of procedures in task planning and review stages of the completion of a task. The results show that a group of competences relating to the execution of tasks and interpersonal relations managers price highly, while competence concidering documentation, ideas that employees want to implement managers prices less. The survey also showed that managers of different levels grade differently competences of employees given that in more than half of the observed competencies it was spotted the difference. Competences of employees are an essential factor of progress of an organization, they need to be set in accordance with the work performed by the employee, and each management level needs to determine what are the competence pertinent to the execution of individual tasks in the organization, and that accordingly works on developing employees.

References

- Aksentijević, J.A., Avakumović, Č., Jelić, M. (2010). Competence and career development in manufacturing-business system info. The International Scientific Conference-Management, Zbornik, Krusevac: Faculty of industrial management, 39-45.
- Bartol, M.K., Martin, C.D. (1994). Management. USA: McGraw-Hill.
- Becker, G.S. (1983). Human Capital. Chicago: University of Chicago Press.
- Bogićević B. (2004). Management of human resources. Belgrade: Faculty of Economics, Belgrade.
- Deb, T. (2006). Strategic approach to human resource management. New Delhi: Atlantic Publishers and Distributors.
- Department of Education, Science and Training (2002): Employability Skills for the Future, http://www.voced.edu.au/content/ngv%3A12484
- Gilbert, C., Winne, S. & Sels, L. (2015). Strong HRM processes and line managers' effective HRM implementation: a balanced view. Human Resource Management Journal, 25(4), 600-616.
- Kermally, S. (2004). Gurus on Managing People. Lodnon: Thorogood.
- Kirton, G., Healy, G. (2009): Using cometency-based assessment centres to select judges implications for equality and diversity. Human Resource Management Journal, 19(3), 302-318.

- Krishnaveni, J. (2013). A study on mapping of employees' competency. Indian Journal of Economics and Development, 1(3), 71-75.
- Marchington, M., Wilkinson, A. (2005). Human resource management at work. Londnon: Chartered Institute of Personnel and Development.
- Micić, R. (2015). Leadership role in certain phases of knowledge management processes. Ekonomika 61(4), 47-56.
- Nelson, B., Economy, P. (2005). The Management Bible. USA: John Wiley & Sons.
- Praštalo, R. (2010). Kompetencije i karijera. Ljubljana: Narodna in univerzitetna knjižnica.
- Robertson, C (1995). NVQs: the impact of competence approaches. Management Development Review, 8 (6), 23 27.
- Robotham, D., Jubb, R. (1996). Competences: measuring the unmeasurable. Management Development Review, 9 (5), 25 29.
- Rubin, N.J., Leigh, I.W. Nelson, P.D., Smith, I.L., Bebeau, M., Lichtenberg, J.W. Portnoy, S., & Kaslow, N.J. (2007). The competency movement within psychology: An historical perspective. Professional Psychology: Research and Practice, 38(5), 17–34.
- Sanchez, J. I., & Levine, E. L. (2009). What is (or should be) the difference between competency modeling and traditional job analysis? Human Resource Management Review, 19(2), 53–63.
- Sanders, K., Yang, H. (2016): The HRM Process Approach: The Influence of Employees' Attribution to Explain the HRM-Performance Relationship. Human resource management, 55(2), 201-217.
- Seate, B., Pooe, R. & Chinomona, R. (2016). The relative importance of managerial competencies for predicting the perceived job performance of Broad-Based Black Economic Empowerment verification practitioners. SA Journal of Human Resource Management/SA Tydskrif vir Menslikehulpbronbestuur, 14(1), a696. http://dx.doi. org/10.4102/sajhrm. v14i1.696.
- Stojković, A., Davidovac, Z., Stojmirović, B. (2014): The impact of motivation on business success. Economics, 54(1) 174 181.
- Šušnjar, G., Zimanji V. (2006). Human resource management, Project: Faculty of Economics, University of Novi Sad.
- Vujić, D. (2015). Competences answer to new challenges of human resources management, The second international scientific conference "Synthesis", 16-17 April, University Singidunum, Belgrade.

56 EKOHOMИKA **ЭС**

Vol. 62, july-september 2016, № 3 P. 57-67

Marina Đorđević1 Dušan Perović² University of Niš, Faculty of Economics SCIENTIFIC REVIEW ARTICLE doi:10.5937/ekonomika1603057D Received: June 29, 2016 Accepted: Septembar 9, 2016

CRISIS IMPACT ON CHANGES IN IMPLEMENTING MONETARY POLICY OF CENTRAL BANKS

Abstract

The aim of the paper is to show how last global financial crisis changed the way of managing monetary policy and what were the consequences of a long time passive behaviour of central banks. Evolutionary characteristics of monetary and real shocks have changed the traditional way of understanding crisis and it brought huge changes in modern monetary policies implementation. The starting hypothesis in this paper is that common monetary measures are not sufficient for solving crisis. This hypothesis will be tested through the analysis of FED, ECB and BoJ monetary actions during the crisis with the use of comparative-analytic method.

Keywords: crisis, monetary strategy, central banks, cash flow, market

JEL classification: E51,E52, E58, G01

УТИПАЈ КРИЗЕ НА ПРОМЕНЕ У НАЧИНУ ВОЂЕЊА МОНЕТАРНЕ ПОЛИТИКЕ ЦЕНТРАЛНИХ БАНАКА

Апстракт

Циљ рада је да покаже како је последња финансијска криза утицала на промене у вођењу монетарне политике, као и са каквим су се последицама суочиле централне банке након вишегодишње пасивне улоге у вођењу монетарне политике. Еволутивни карактер монетарних и реалних шокова у великој мери изменио је традиционални начин схватања криза и довео је до крупних промена у савременом вођењу монетарне политике. Полазна претпоставка у раду је да уобичајне мере нису довољне за решавање кризе, због чега ће ова претпоставка бити тестирана кроз анализу монетарних акција централних банака САД, ЕУ и Јапана употребом компаративноаналитичког метода.

Кључне речи: криза, монетарна стратегија, централне банке, новчани ток, тржиште

¹ marinadj@ptt.rs

² bokaperovic@yahoo.com

Introduction

For recent crisis big responsibility had neoliberal concept. Neoliberalism has focus on the radical individualism, economic liberalisation, deregulation, "free market", the reduction of state role in economy and public sector privatisation (Peric, Maric, 2015). This doctrine influenced many central banks to permit bigger money supply in order to achieve higher economic growth rate. Inflation rates were higher, but they could be still well controlled by monetary authorities.

Expansionary monetary policy was not sustainable any more back in 2007. When financial crisis emerged in USA and was quickly spread all over the world, that was a signal for monetary authorities that they have to change something quickly or they will have bigger problems in future. The collapse of major financial firms led to a series of a panics on global stock markets, wiping trillions of dollars off the value of stock (Beder, 2009). Lower share prices combined with less credit supply brought uncertainty for future investments, which caused lower economic activity and in the end higher unemployment rate and recession.

Authors have started from basic point where traditional mechanisms are not so effective for solving last crisis, if characteristics and intensity of crisis are involved. Paper is structured so beside introduction and conclusion has three parts. First part brings brief analysis of crisis at monetary sector and factors that caused problems. Second part gives closer look to actions that many central banks implemented in order to alleviate crisis effects and set monetary sector on right track. Third part brings analysis of major central banks behaviour, where will be made deeper analysis of actions that changed the typical way of monetary thinking.

Monetary sector as a cause of the outbreak of the crisis

Monetary policy has task to implement effective controll of money supply, because stability of monetary sector leads to overall economic stability (Hubbard, 2005). Before taking a decision about monetary policy, business cycles and basic economic situation inside and outside of national economy must be carefully observed. Optimal structure of monetary policy depends from: a) publics ability to predict policy makers actions, b) the policy makers goals, c) the predictability of linkages between policy tools and goals, d) the extent of shocks to economy and e) the perceived credibility of policy makers (Englander, 1991).

Global economic and financial crisis was a result of too much deregulation at some markets. Mortgage market was one of primary triggers for crisis, but large responsibility lies also on Federal Reserves (FED). With bigger availability of credits many people have started to buy flats and houses and that increased overall sale in real estate area. As prices of real estates were on constant increase, subprimary mortgage market was formed. Subprime market was responsible for outbreak of the crisis due to lack of regulation. With too many houses and apartments sold with the assistance of cheap credits, real estate bubble was created and later caused problems first in USA and later in the world (Veselinovic, 2012, p. 434-436).

From 2000 to 2006 FED lowered reference interest rate from 6,24 to 4,96% with note that interest rate in 2003 was 1,13% which was at the lowest level ever. This

ЕКОНОМИКА ЭС

encouraged borrowing from abroad in order to finance huge current account deficit. FED's decision to slightly increase interest rate from 2004 to 2006 caused increase of short and long-term adjustable rate mortgage rates making them expensive for house owners. As housing prices started to decline, borrowers could not finance their obligations and this led to bankruptcy of many banks and depository institutions that gave mortgage loans.

European Central Bank (ECB) is responsible for monetary policy of EU and it implements monetary strategy that can be viewed as a modified version of inflation planning where central bank tries to avoid precise assessment or volume for medium-term inflation, while it uses explicit nominal anchor (M1 or M3 aggregates) for long-term inflation expectations (Borde & Clerc, 2004, p.12). ECB aims at inflation rates of below, but close to 2% over the medium term.

At the end of 2007 average inflation rate reached 2,17% and this called for monetary actions. Concerned for price stability ECB raised interest rates twice. As a result, the minimum bid rate in the main refinancing operations of Eurosystem was at level of 4,00% in June 2007. Having seen the situation in USA, many banks in Europe have started to rely on liquidity from Eurosystem and they have provided less money for interbanking market. During June and July 2008 inflation rate reached 4% and that was a signal for ECB to raise interest rates in order to prevent deeper crisis. ECB interest rates were raised by 25 basis points in July. With higher interest rates, by the end of year inflation rate declined to 1,6%, but additional problem was that during the 2008 EU entered recession with negative growth rates in second (-0,1%), third (-0,3%) and fourth quarter (-1,5%) (Fahr et al., 2011). High interest rates have caused less money supply on market which was necessary for investments. Low growth rate and recession had impact on increasing unemployment rate to 9,4% in EU and caused sovereign debt crisis in countries like Greece, Ireland and Portugal.

Bank of Japan (BoJ) has implemented expansionary monetary policy for a very long time. Low interest rates (0,1-0,5%) were supportive for attracting more funds into domestic industry and foreign trade. Japan was also struggling with deflation, so low rates were needed for improving economic conditions. With the outbreak of crisis Japanese stock market prices declined sharply and this has limited commercial banks to lend more funds for domestic industry. In the third quarter of 2008 new loans for equipment funds declinded by 9%, followed by 10% decline in fourth quarter (Kawai & Takegi, 2009). Lack of funds caused industrial production decline and in combination with sharp appreciation of yen export-oriented firms have faced business problems. In January 2009 overall export was reduced for 50% than in September 2008. Negative growth (-6,2%) and reduced export of capital goods required strong measures in order to create right path of recovery.

Monetary response to crisis

With crisis started to spread, central banks were fully aware that they must react immediately if they want to help economies not to fall into deeper recession. Central banks want to rebuild monetary systems after shocks and crisis and it was a right moment to change the face of monetary strategy that was implemented until the crisis. It is always good to have new way of thinking, because every new crisis differs from the other and

with the evolution of crisis some well-known measures can be useless. This time it was a right moment for implementing some unconventional methods in order to solve crisis.

First measure, which FED had implemented, was reducing the federal funds rate. From the beginning of the crisis in September 2007 until the end of December 2008 federal funds rate was reduced from 5,25% to 0,25%, which was the lowest level in FED history. FED knew that relying on reduced federal funds rates will not be sufficient on a long-term, because most of assets were not provided to banks in a way that FED wanted. By the end of 2009 unemployment rate was 10%, while annual inflation rate was 2,63% which was higher than aimed target of 2%.

When traditional transmission mechanisms did not provide enough assistance, FED has started with direct involvement on interbanking market. FED introduced emergency credit facilities, which goal was to increase liquidity of financial market and its participants. FED has set up liquidity facilities in order to provide funds to banks at a competitive rate lower than discount rate through auctions (Mishkin, White, 2014, p. 7-9). These facilities were important for investment banks, because they could increase their assets with purchasing commercial papers, mortgage backed- securities and other kind of papers. During the first few months of the crisis overall assistance through facilities was \$480 million and by the end of 2008 it reached \$1,6 trillion.

Another measure that FED implemented in order to improve market liquidity was quantitative easing (QE). This new strategy is a support to monetary policy, where FED directly assists to market participants. FED tried to stimulate aggregate demand and consumption, but also to prevent further unemployment rate increase with buying long-term securities especially US Treasury securities, agency debt and agency mortgage-backed securities (Engen et al, 2015). FED has spent about \$85 billion per month on buying securities and this had impact on increasing FED's balance sheet. This unconventional policy reduced long-term interest rates, which were very important for mortgage market.

Table 1. Quantitative easing changes in asset holdings on the FED's balance sheet (billions of dollars)

	Treasury Security Holdings	Agency MBS Holdings	Agency Debt Holdings	Total Assets
QE1 (Mar.2009- May 2010)	+302	+1,129	+168	+451
QE2 (Nov. 2010– July 2011)	+788	-142	-35	+578
QE3 (Oct. 2012-Oct. 2014)	+810	+874	-48	+1.163
Total	+1,987	+1,718	+40	+2,587

Source: Labonte, 2015

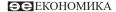
Table 1 shows how FED used QE for purchasing securities. Total assets just before the crisis were less than \$500 billion and by the end of 2014 they were \$2,5 trillion which

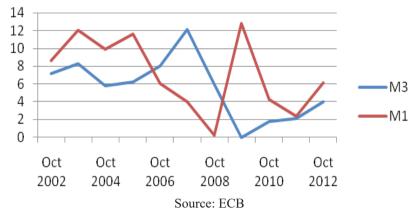
is five times larger than before the crisis. QE had impact on increasing bank reserves. In August 2008 value of bank reserves was about \$46 billion and by the end of same year it was \$820 billion. This value continued to increase in October 2009 when it exceeded \$1 trillion, while at the end of 2014 it was about \$280 trillion. This was a sign that banks were on a recovery path.

Implementing all these measures brought modest, but needed growth for US economy. Meanwhile, FED switched to explicit inflation targeting, where target goal was 2%. During the most period of the crisis inflation rate remained below 2% which prooved that measures did not brought big inflatory pressure. Money supply did not generate inflatory pressure due to economic surplus, relatively good situation on credit market and well adopted inflatory expectations. Price stability, unemployment rate and GDP growth have strong connections, but strength of economy also allows FED to implement some unconventional methods in order to solve problems.

In Europe, ECB rapidly reduced main financing rate by 50 basis points and until May 2009 all key rates were reduced by 325 basis points. The main financing rate was at 1%, which was the lowest in ECB history. This was still not good enough for improving market liquidity, because of negative growth and high unemployment rate.

ECB also adopted some non-standard measures to support financing conditions and credit flows in euro area which could be achieved through reductions of key interest rates. The unconventional measures that ECB used were: fixed-rate full allotment, extension of the maturity of liquidity provision, extent of collateral eligibility, currency swap agreements and covered bond purchase programme (CBBP) (Cour-Thimann, Winkler, 2013). Fixed-rate full allotment was designed to support the short-term funding needs of banks, with maintaining and enhancing the availability of credits to households and companies at accessible rates. Extension of the maturity of liquidity provision extended the maximum maturity of the long-term refinancing operations (LTROs) with keeping money market rates at low level so refinancing operations between banks in euro zone will become easier. As for collateral eligibility, ECB has already accepted private securities, but with the outbreak of the crisis asset-backed securities were also accepted as a collateral, because ECB decided to refinance non-liquid assets due to liquidity problems. Currency swap arrangement was a part of deal between ECB and FED. This measure will help ECB to provide liquidity in foreign currency (US Dollar), at various maturities and against euro-denominated collateral. ECB also decided to start with buying covered bond in order to revitalise bond market and increase money supply needed for liquidity. From July 2009 to June 2010, 422 different bond were purchased on primary and secondary market for a total amount of €60 billion (ECB, 2010). Covered bonds with maturities of three to seven years were purchased and were hold until maturity.





Graphic 1. Changes in monetary aggreagtes M1 and M3 in euro zone for 2002-2012 (in %)

Graphic no.1 shows how M1 and M3 target have changed in last ten years. M1 aggregate has grown faster than M3 until 2006, but since the beginning of the crisis it is clear that M3 has started to grow faster. With the outbreak of sovereign debt crisis and appearance of deflation in 2010 M1 started to grow again and by October 2012 it had just a little more growth then M3. This growth of M1 was result of double interest rate increase in April 2011 to 1,25% and in July 2011 to 1,50%.

With the emerge of sovereign debt crisis in Greece ECB had to go with more unconventional methods and at that moment ECB became a true committed lender of last resort for banking system. ECB decided to extend the maturity of LTROs with a maturity of 36 months and the option of early repayment after one year (Pattipeilohy et al., 2013). In December 2011 ECB lent about €490 billion to banks and in February 2012 more €530 billion. Problem at bond markets in Italy and Spain forced ECB for new measures. This time ECB bought bonds in stressed countries for a total amount of €220 billion and this caused the increase of ECB balance sheet. Refinancing rate was cut to 0,25% in November 2013 and same thing happened to marginal lending facility rate and deposit rate that were reduced to 0,75% and 0,00%. In June 2014 refinancing interest rate was again reduced to 0,15%, the marginal lending facility rate to 0,40% and the deposit rate to -0,10% as a part of anti-deflation plan (Rodriguez & Carrasco, 2014).

BoJ immediate response to crisis was allowing unlimited amounts to banks at near zero rates through special-funds-supplying operations (SFSOs). Banks would count on the amount of loan that was equal to the amount of available collateral (commercial papers and corporate debts) that they had. This way, BoJ decide to take direct involvement in market and it started to buy Japanese government bonds, corporate bonds and commercial papers. Per month BoJ has spend about ¥ 6 trillion for purchasing these papers. By the end of 2009 BoJ announced to replace SFOs with fixed-rate operations (FROs). BoJ offered ¥10 trillion in 3 months maturity with later increase to ¥20 trillion and ¥10 trillion in 6 month maturity. What is most important is that BoJ opened Growth Supporting Funding Facility (GSSF) to support economy development. Export-oriented companies could take loans from banks on short-term (1 year), which could be extended to 4 years at fixed rate. This brought a slight increase of industrial production and export, but still not good enough to get out of recession.

62 EKOHOMИКА **ЭС**

By the end of 2010, BoJ announced that Asset Purchase Program (APP) will be established as a part of comprehensive monetary easing. This also includes lowering the target for uncollateralized overnight call rate from 0,1 to 0,0% and clarifying the conditions for exiting the zero interest rate payment. Purchasing of assets will also include exchange-traded funds, Japanese real estate investment trusts and many other private assets (Fawly & Neely, 2013). Through this program BoJ initially provided \(\frac{4}{3}\)5 trillion, with additional \(\frac{4}{2}\)20 trillion in future. From October 2011 to December 2012 BoJ purchased Japanese government bonds and Treasury Bills for \(\frac{4}{6}\)0 trillion and private assets for \(\frac{4}{1}\)1 trillion. Meanwhile, BoJ provided additional \(\frac{4}{6}\)0 trillion for growth projects, which was shown as a right move because increased domestic demand has caused higher growth rate in 2012 (1,8%) and that was a signal of recovery. Although more funds were allowed to companies in order to increase their domestic and international activities, inflation rate remained around 0%.

350 300 250 EU 200 150 USA 100 Japan 50 0 2008 2009 2010 2011 2012 2013 Source: BoJ, ECB, FED

Graphic 2. Monetary base changes in EU, Japan and EU for 2008-2013 (in%)

Monetary measures that have been implemented by central banks in EU, Japan and USA increased monetary base. That increase was much higher and faster in USA, because FED had to react with enourmous injection of money supply to market, since crisis has started in USA first. From graphic 2 it can be seen that other two central banks BoJ and ECB have also reacted with increasing money supply, but their responses were slow and not in same intensity like in USA. After 2011 monetary base has significally increased with the implementation of unconventional financial methods. These methods produced more money supply, which is important for the recovery of cruicial markets. With the increase of monetary base, there was a fear that too much money on market will produce inflatory processes. This didn't happen, because inflatory expectations were on place and monetary authorities have directed money to right places where existed huge money demand. This time inflatory rates didn't create problem for central banks.

New direction in implementation of monetary strategies

With every new crisis central banks have to rearrange their goals, instruments and mechanisms in order to improve all monetary aspects and avoid crisis. With last crisis it was a final moment for central banks to quit with their passive role on market. Central banks have also started to follow assets prices and try to control their changes in order of achieving financial stability (Mishkin, 2006). Direct involvement of central banks was result of too much deregulation on market, which only created space for participants with low-quality liquidity and solvency. This led to big market anomalies and created more troubles for global economy. In that situation states and their central banks had to find new ways for dealing with problems and to create better environment for market participants.

Last financial crisis showed that holding both financial and price stability represents very hard task. During the crisis these two kinds of stability showed that they have very strong interaction and that bringing their relation back to normal will help in solving crisis. Many central banks are implementing monetary policy in a direction of price stability, because variations of inflation rate can cause problems for manufacturing and trading sections. Also, when country has huge external debt inflation rate variations delay quick repayment of debt. Achieving financial and price stability at the same time require development of additional monetary instruments and policies of creditworthiness regulation (Geraats, 2010). Monetary sector has become very sensitive on changes at financial markets and this influenced central banks to start developing new strategies that can solve the problem of financial disbalance. Monetary problems are linked with financial problems and this the main reason why 14 out of 18 central banks in eurozone have improved supervisor role and this also happened with other central banks out in world (Zsolt, Silvia, 2013).

Liquidity issues are important task for every central bank. When they become problem central bank can use some measures for solving them. Central banks usually use open market operations for increasing liquidity or sometimes create credit programmes for organisations that have liquidity problems. It does not happens often, but sometimes central bank is purchasing specific type of assets to increase the liquidity of market like during the last crisis. These kind of assets are usually government bonds and their purchase also increases liquidity of central bank and its balance sheet. For central banks it is very important to discover the background of monetary shock in order to implement right measures. If the shock had origin at assets markets, then there would be a problem of market liquidity and that can be a signal for central bank reaction (Krstic et al, 2010). This happened during the last crisis.

FED Riksbank SNB **ECB** BoJ BoE BoC Lowering rates to very low De X X X Х levels facto Increasing liquidity provision to financial X Х X X X X X institutions

Table 2. Central banks measures in response to the crisis

Interventing directly in wider segments of the financial market	x	X	X	X		x
Purchasing long-term government bonds	X		X	X		
Supporting specific institutions	X		х	х	X	X

Source: Minegishi, Cournede, 2010

Liquidity support for banking system was crucial in process of economic recovery. FED and BoJ have approved large increases in monetary base due to substantial asset-purchase programmes. Huge liquidity support had impact on central banks balance sheets increase and this way monetary authorities have shown how serious they care about monetary sector. Liquidity injections were related to the lender of last resort function, which only helped central banks to become dominant market participants.

Keeping short-term interest rates at zero bound for a substantial period of time helped in lowering long-term interest rates and raised inflation rates, which resulted in reducing the real interest rate (Mishkin, 2010). By steering the level of key interest rates, the central bank effectively manages the liquidity conditions in money market and pursue its primary objective of maintaining price stability over the medium term (Meric, 2012). This turned markets from being insufficient to sufficient ones.

Conclusion

Every crisis changes the way of implementing certain monetary strategy, but the last one change the whole concept of monetary policy. Crisis has left many people without job, led to bankruptcy of many companies, caused shocks on financial markets and change overall expectations. Many strategies like inflation targeting were facing with difficulties on short and long –term and that is reason why some unconventional tools have become significant to overall performances of national economies.

Developments in the financial sector have a far greater impact on economic activity than everyone really expected. Mortgage market, especially subrprime mortgage caused huge losses on a relatively small part of financial market. Central banks believed that these shocks could be manageable, but they were wrong after the collapse of few depository and insurance companies. Authors have found that due to intensity of crisis, central banks were forced to change monetary strategies and to start with the implementation of some unconventional measures. The results of implementation were different because of certain specifics of the economies, but it was prooved that solving crisis could not go without implementation of unconventional monetary rules. Creating credit programmes for lending money to banks and financial institutions, quantitative easing and shaping expectations about the future path of interest rates are additional measures that central banks do not use every day.

Inflation targeting has become important strategy in process of economic stabilisation. Since 2012 FED has started with explicit inflation targeting where inflation

is long-term goal. This change will help to keep inflation expectations at safe level which can help in achieving price and long-term interest rates stability. When real inflation expectations exist central bank will have bigger responsibility in taking care of this problem. ECB announces explicit inflation objective, but still refuses to treat it like a target because of possible public misunderstanding. Inflation targeting can help ECB in recovery process, but there is a still enough place for bigger involvement at European financial markets.

References

- Beder, S. (2009). Neoliberalism and the global financial crisis. *Social Alternatives*, 8(1), 17-21.
- Borde, C., Clerc, L. (2004). *Price stability and the ECB's monetary policy strategy*. Banque de France. Paris.
- Cour-Thimann, P., Winkler, B. (2013). The ECB's non-standard monetary policy measures The role of institutional factors and financial structure. *Oxford Review of Economic Policy*, 28(4), 765-805.
- ECB. (2013). The ECB's response to the financial crisis, *ECB Monthly Bulletin*, October. https://www.ecb.europa.eu/pub/pdf/mobu/mb201010en.pdf. (accessed on 27th August 2015).
- Engen, E., Laubach, T. & Reifchneider, D. (2015). *The Macroeconomic Effects of the FED's Unconventional Monetary Policies*. Federal Reserve. Washington. http://dx.doi.org/10.17016/FEDS.2015.005. (accessed on 14th November 2015).
- Englander, S. (1991). Optimal Monetary Policy Design: Rules Versus Discretion Again. *Quartely Review 15*, 65-79.
- Fahr, S., Motto, R., Rostagno, M., Smets, F. & Tristani, O. (2011). *A monetary policy strategy in good and bad times lessons from the past*. Working Paper No. 1336. ECB. Frankfurt.
- Fawly, B. & Neely, C. (2013). Four stories of quantitative easing. Review, 95(1), 51-88
- Geraats, M.P. (2010). Price and financial stability: dual or dueling mandates?. *38th Economic Conference of Oesterreische Nationalbank*, 56-63. Oesterreische Nationalbank, Vienna.
- Hubbard, G. (2005). Money, the Financial system and the Economy. Pearson. Boston.
- Kawai, M. & Takegi, S. (2009). Why was Japan Hit So Hard by the Global Financial Crisis? ADBI Working Paper 153. Asian Development Bank Institute. Tokyo.
- Krstić, B., Marinković, S. & Jemović, M. (2010). Aktuelne kontraverze o nadležnostima centralne banke u odnosu na njene tradicionalne funkcije. *Ekonomske teme 4*, 481-498.
- Labonte, M. (2015). *Monetary Policy and the Federal Reserve: Current Policy and Issues for Congress*. Congressional Research Service. Washington.
- Merić, M. (2012). Unconventional measures of monetary policy in the function of financial stability. *Ekonomika* 2, 218-235.

66 ЕКОНОМИКА ЭС

- Minegshi, M. & Cournede, B. (2010). Monetary Policy Response to the Crisis and Exit Strategies, OECD Economics Departement Working Paper No. 753. OECD Publishing. https://dx.doi.rg/101787/5klm6xm79956-en. (accessed on 7th September 2015)
- Mishkin, F. (2011). *Monetary Policy Strategy: Lessons from the Crisis*. NBER Working Paper No. 16755. National Bureau of Economic Research. Cambridge.
- Mishkin, F. (2006). Strategija monetarne politike: Kako smo dospeli ovde? *Paneconomicus* 4, 359-388.
- Mishkin, F., White, E. (2014). Unprecedented Actions: The Federal Reserve's Response to the Global Financial Crisis in Historical Perspective. Working Paper No. 209. Federal Reserve Bank. Dallas.
- Pattipeilophy, C., Willem, J., Tabbae, M., Frost, J. & Haan, J. (2013). *Unconventional monetary policy of the ECB during the financial crisis: An assessment and new evidence*. Working Paper No. 381. Nederlandsche Bank. Amsterdam.
- Perić, M., Marić, R. (2015). Trade policy in neoliberal era. *Ekonomika*, 61(3), 163-172.
- Rodriguez, C., Carrasco, C. (2014). ECB policy responses between 2007 and 2014: A chronological analysis and a money quantity assessments of their effects. Faculty of Economics. Bilbao.
- Veselinović, P. (2012). Izazovi ekonomske nauke u uslovima globalne ekonomske krize. *Ekonomske teme 4*, 433-450.

эе ЕКОНОМИКА

Mirjana Bojcevski¹ Vlado Kovacevic²

Ministry of agriculture and environment protection of the Republic of Serbia, Belgrade, Serbia **Jonel Subic**³

Institut of agricultural economics, Belgrade, Serbia

SCIENTIFIC REVIEW ARTICLE

doi:10.5937/ekonomika1603069B

Received: July11, 2016

Accepted: August 28, 2016

ROLL OF A FARM ACCOUNTANCY DATA NETWORKS (FADN) IN AGRICULTURAL SECTOR IN SERBIA

Abstract

The aim of this paper is to analyze the roll of the system of Farm accountancy data networks (FADN) in Serbian agriculture.

FADN system is compulsory for all EU Member States which are obliged to establish uniform system and FADN reports in standardized form are submitted annually to the European Commission. FADN reports are used by the EU institutions primarily for the purpose of analysis of agricultural policy measures.

FADN system is regulated by the European Union and it is based on annual survey on the structure, production, revenues and expenses of farms, with organizational structure of the FADN system and methodology prescribed by the EU.

The Republic of Serbia has started with the introduction of the FADN in 2011.

The analysis in this paper shows that the FADN system has importance regarding to fulfillment of the conditions necessary for EU integration. Additionally FADN has importance as instrument of domestic agrarian policy, importance for individual agricultural producers and importance for scientific research in the agricultural sector.

Keywords: FADN, accounting in agriculture, agrarian policy.

JEL classification: M410, M480

ULOGA SISTEMA RAČUNOVODSTVENIH PODATAKA NA POLJOPRIVREDNIM GAZDINSTVIMA (FADN) U POLJOPRIVREDNOM SEKTORU SRBIJE

Apstrakt

Cilj rada je analiza uloge koju Sistem računovodstvenih podataka (FADN) ima u poljoprivrednom sektoru Srbije.

FADN je obavezan za sve zemlje članice EU koje su obavezne da uspostave sistem FADN i šalju standardizovane godišnje izveštahje Evropskoj Komisiji. FADN izveštaji se koriste od strane EU institucija primarno u cilju analize mera agrarne politike.

¹ mirjana.bojcevski@minpolj/gov.rs

² vlado.kovacevic@minpolj.gov.rs

³ jonel_s@iep.bg.ac.rs

Pravni okvir za FADN je definisan od strane EU i zasniva se na istraživanjima strukture, proizvodnje, prihoda, i troškova na poljoprivrednim gazdinstvima na godišnjem nivou prema organizacionoj strukturi i metodologiji koja je propisana za sve zemlje članice EU.

Republika Srbija je započela sa uvođenjem FADN sistema u 2011. godini.

Analiza u okviru ovog rada je pokazala da FADN sistem ima značaj u procesu priključenja Srbije EU s obzirom da je ovaj sistem obavezan za sve zemlje članice. Dodatno FADN sistem je važan instrument u kreiranju domaće agrarne politike, od važnosti je za pojedinačna poljoprivredna gazdinsta i naučno-istraživački rad u poljoprivrednom sektoru.

Ključne reči: FADN, poljoprivredno računovodstvo, poljoprivredna politika.

Introduction

All countries of the European Union through the FADN system collect technical, financial and economic data from over 80,000 agricultural holdings each year. The collected data includes all activities on farms during the twelve-month period. FADN survey is the tool by which the European Union is collected detailed financial data from agricultural holdings, and therefore represents an important source of information for decisions regarding agricultural policy (Hill B. & Bradley D., 2016).

The requirements of the European Union related to the FADN survey are contained in the regulations of the European Commission, namely the Council Regulation (EC) No 1217/2009 on establishing a system for the collection of accountancy data on incomes and business operation of agricultural holdings in the European Union (Council Regulation (EC) 1198 / 2014 amending this Regulation and Implementing Regulation (EU) No 220/2015 laying down rules for the application of Council Regulation (EC) No 1217/2009.

There are several requirements of the European Union in terms of the FADN methodology:

- links/relations with other statistical data and research,
- defining the representative sample/selection of farms,
- requirements for data collected and results,
- requirements in terms of data processing.

FADN research is closely related to the data collected by state institution for statistics, including agricultural census, a survey on the structure of agricultural holdings, calculate the standard value of production and the economic accounts for agriculture (Vasiljević & Zakić, 2008).

FADN data can be distributed to different users:

- Participating institutions in FADN system (Ministry of Regional Coordination Mechanisms, Republic Institute for Statistics),
- agricultural producers,
- agricultural extension and technical services,
- educational and research institutions, agricultural and rural policies decision makers.

It is important to note that the FADN survey has strict regulations on the use of data than most other studies/surveys, due to the personal nature of each financial accounting

70 ЕКОНОМИКА ЭС

report of the agricultural holding. Therefore, disseminating of the data must comply with restrictions on the use of the FADN data with clear procedures (Vasiljevic et al., 2012).

Dissemination of the FADN results is based on standard results, which are generated on the basis of validated forms of collective FADN accounting data farms. The standard results are a set of statistical data, calculated on the basis of accounting data patterns of agricultural holdings, which periodically prepares and publishes the European Commission⁴.

The European Commission also defines a method for performing the main variables of income and capital. All results are given in euros, enabling the results of the individual Member States can be given as the total value at EU level, and also enables the comparison of results of two or more Member States. Rate (national currency - the euro) is calculated for each Member State for each FADN accounting year, and an average of the monthly rates. These monthly exchange rates calculated by Eurostat and made available as part of the CRONOS database.

Organizational unit responsible for FADN in the European Commission has established a set of standard groups, for each accounting year is calculated standard results. This can be complemented by other relevant information available in the reference database. Variables defined in the standard results represent averages. These values are calculated for each year, per Member State, the type of farming and economic size class. Such information can be accessed from public databases, which offers the ability to view a large set of pictures of different 'average agricultural holdings across the European Union (Vasiljević, 2012).

Organizational unit responsible for FADN in the European Commission annually reviews the economics of agricultural holdings in the European Union on the basis of various economic and financial indicators. It also provides an overview of the situation on farms in the European Union and by Member State and by type of agricultural production over the past years. Reports on the development of revenue, the distribution of direct payments and less favored areas to perform agricultural production (marginal areas) are also regularly published. In addition to regular reports, the organizational unit responsible for FADN makes a special analysis. They require various units and directorates of the European Commission and other EU institutions, in particular the unit responsible for the management of agricultural markets, then for rural development, evaluation measures of the Common Agricultural Policy and policy making. Request for FADN data and ad hoc analyzes is constantly increasing (Pejanovic et al., 2013). Analyses based on the FADN research play a key role in the whole process of reforming the common agricultural policy, i.e. an evaluation of CAP measures and assessing the impact of policy proposals. Relevant reports can be found on the official website of the European Commission (Bradley D., 2015).

Material and methods

Having in mind the nature and significance of research, in the paper are used different methods applied in the social sciences:

- The case study method using the examples:
- Comparative method:

ЭЕ ЕКОНОМИКА

⁴ See more: (RI/CC 882)- Definitions of Variables used in FADN standard results- RI/CC 882 Rev. 9.2. December 2014

- Desk research method:
- Method of interviews with relevant experts in the relevant field.

Results and discussion

FADN system in Serbia started in 2011, includes 33 agricultural extension stations distributed throughout the territory of the Republic of Serbia which are performing the work the Office for the collection of accountancy data for FADN survey. The data collected advisers employed in agricultural extension service, and Offices of collecting accounting data, who are responsible for the identification and location of agricultural producers for FADN research, data collection, processing and filling out forms and accounting entries with agricultural holdings in the FADN database.

The Ministry of Agriculture and Environmental Protection of Republic of Serbia and the National Committee for the FADN system determined the following criteria for the FADN field of research:

- 1) Two FADN regions Serbia-North and Serbia-South,
- 2) The threshold of economic size of 4,000 euros,
- 3) 10 basic types of farms (out of 49);
- 4) 14 main groups of farms by economic size;
- 5) The representative number of holdings in the FADN sample will be approximately 2,000 households;

After established criteria for developing the plan for the selection for farms, second task was to establish FADN field of research and compiled a list of farms that are included in the plan (sorted by region, economic size and typology).

The selection of the FADN sample farms is based on data from official statistical farm register kept by Statistical office (based on Census of Agriculture from 2012 and other sources of information).

Organization of FADN system in the Republic of Serbia is involving:

- (1)The Ministry responsible for agriculture Department for Analytics and Statistics:
 - (2) The National Committee for the FADN system;
 - (3) Regional coordination bodies;
 - (4) The Republic organization in charge of statistics;
 - (5) Agricultural advisory and extension services;
 - (6) Agricultural holdings;
 - (7) Agricultural scientific, research and educational institutions.

The Ministry of Agriculture and Environment Protection is responsible for proposing systemic solutions in the field of agriculture, as well as for the implementation of Regulation (EC) No 1217/2009, which defines the organization and technical implementation of the FADN system. For effective functioning of the FADN system regional coordinating bodies are playing important roles by providing coordination of activities for the FADN system within its jurisdiction.

According to the Census of Agriculture, the Serbia has 631,552 farms, with 3,000 farms as a legal entities and entrepreneurs and 628,552 family farms. In 2013 the number of farms included in the FADN system was 500, while in 2014 and 2015, that number is increased to 1000.

72 EKOHOMИКА **ЭС**

FADN data in Serbia can be used for:

- Statistics and reports
- Analysis data on demand, and research
- Extension officers,
- Feedback for agricultural producers.

FADN system generates annual reports and statistical analysis on the economic and financial situation in the agricultural sector. Due to the limited number of farms involved in the first years of establishing FADN research and verification of data quality, content and structure of the report needs time to be developed according to national requirements and needs (Keszthelyi1 et al., 2005).

The following charts shows examples of the possibilities and the importance of using data obtained from the FADN system⁵.

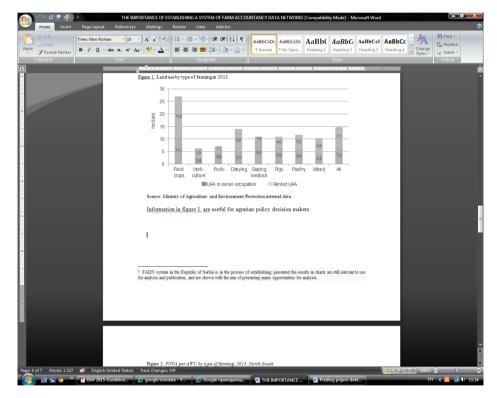


Figure 1. Land use by type of farming in 2013

Source: Internal data of the Ministry of Agriculture and Environmenta Protection of the Republic of Serbia

Informations in Figure 1 are useful for agrarian policy decision makers.

Эе ЕКОНОМИКА

73

⁵ FADN system in the Republic of Serbia is in the process of establishing, presented the results in charts are still relevant to use for analysis and publication, and are shown with the aim of presenting many opportunities for analysis.

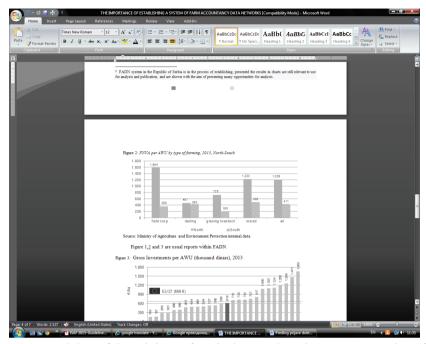


Figure 2: FNVA per AWU by type of farming, 2013, North-South

Source: Internal data of the Ministry of Agriculture and Environment Protection of the Republic of Serbia



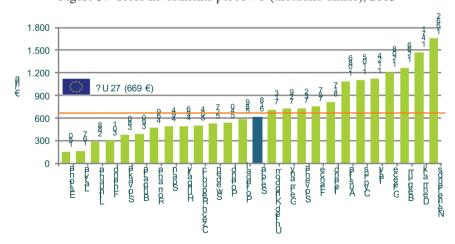


Figure 3: Gross Investments per AWU (thousand dinars), 2013

Source: Internal data of the Ministry of Agriculture and Environment Protection of the Republic of Serbia

Roll of FADN data for scientific research. All collected statistical data are based on a predefined grouping of farms (type, size and region). In order to create benchmarks for individual farms, as well as specific analysis for the ministries and agricultural advisory services, it should be possible to request statistical data for agricultural holdings in other group sizes or a more detailed / more specific definition of the type of production. Such analysis or statistical data on demand should respect the confidentiality of the data, and present results only if at least five farms in the group (Barkaszi et al., 2009).

The importance of FADN data for agricultural advisory services. New information obtained from the FADN research improves the knowledge and improve operation of agricultural advisors. Statistical results and analysis of the national database (comparable to the EU, the region, the area etc.) can contribute to the enhanced analysis of individual agricultural holdings on the basis of which a counselor may make specific findings on the operations and allows them to provide better advice to farmers (Vasiljevic et al., 2008).

The importance of FADN feedback for agricultural producers. Agricultural producers are not obliged to make the bookkeeping in the Republic of Serbia and the FADN data are for the many farmers only relevant information on the operations of agricultural holdings. There are no binding requirements of the European Union to give feedback to the farmers on the operating results obtained in the FADN survey. However, it is considered an integral part of FADN good practice to perform feedback to the farmers. FADN feedback system is of great importance because the advisors can focus with its producers through record-keeping focus on revenue, expenses and profit (Csajbok et al., 2005).

Conclusion

During the coming year, the methodology of the FADN research will be further developed and adapted in accordance with the requirements of the European Commission, as well as institutions FADN system in the Republic of Serbia and the user information obtained on the basis of FADN research. Develop a methodology for FADN survey will also include the selection of agricultural holdings and on the collected data.

Additional modifications to the EU requirements and national requirements for FADN data in the Republic of Serbia could pose the new requirements regarding the information to be collected in the future. EU regulations establish minimum requirements in terms of data, and it requires regular monitoring and adjustment of the data should be processed and submitted to the European Commission.

In the coming period it is necessary to highlight national use of the data obtained in the FADN survey, the importance of using data for decision-making, which can on the basis of analysis of the impact of agricultural policy, promote the creation of measures of agricultural policy. Also, FADN data can provide to farmers information necessary for making business decisions, which should enable successful business and contribute to the achievement of profit.

It is important to monitor and respect all users FADN data and if there are specific national requirements necessary to include them in the FADN research, which will contribute to increasing the importance of the FADN system. The analyze in this paper shows that the FADN system in addition to the importance of having regard to fulfillment

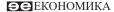
of the conditions necessary for EU integration has the importance for domestic agrarian policy, impact on improvement of the competitiveness of agricultural producers involved in the FADN and importance for scientific research in the agricultural sector.

References

- Barkaszi L., Keszthelyi S., Kis Csatári E. & Pesti C., (2009). FADN Accountancy Framework and Cost Definitions, The research leading to these results has received funding from the European Community's Seventh Framework Programme (FP7/2007-2013) under grant agreement no 212292, available at: http://facepa.slu.se/documents/Deliverable D1-1-1 LEI.pdf, (accessed: 9.07.2016).
- Bradley D., (2015). Cost of and good practices for FADN data collection-Final report, European Commission B-1049 Brussels, available at: http://www.ceasc.com/Images/Content/Cost%20of%20and%20good%20practice%20in%20 FADN%20data%20collection-%20Final%20report.pdf, (accessed: 5.06.2016).
- Commission Delegated Regulation (EU) No 1198/2014 of 1 August 2014 supplementing Council Regulation (EC) No 1217/2009 setting up a network for the collection of accountancy data on the incomes and business operation of agricultural holdings in the European Union.
- Commission Implementing Regulation (EU) 2015/220 of 3 February 2015 laying down rules for the application of Council Regulation (EC) No 1217/2009 setting up a network for the collection of accountancy data on the incomes and business operation of agricultural holdings in the European Union.
- Commission implementing regulation (EU) 2015/2323 of 11 December 2015 amending Implementing Regulation (EU) 2015/220 laying down rules for the application of Council Regulation (EC) No 1217/2009.
- Commission Regulation (EEC) No 1915/83 of 13 July 1983 on certain detailed implementing rules concerning the keeping of accounts for the purpose of determining the incomes of agricultural holdings.
- Commission Regulation (EU) No 1291/2009 of 18 December 2009 concerning the selection of returning holdings for the purpose of determining incomes of agricultural holdings.
- Council Regulation (EC) No 1217/2009 of 30 November 2009 setting up a network for the collection of accountancy data on the incomes and business operation of agricultural holdings in the European Community.
- Csajbok I., Lansink A. & Huirne R. (2005). Effects of management information from FADN on profitability of Dutch potted-plant firms, Agricultural Economics, 33 (3), p.p. 325–331.
- EU Commission web page *FADN* unit DGAGRI http://ec.europa.eu/agriculture/ricaprod/ (accessed: 08.08.2015).
- EU Commission web page -http://eur-lex.europa.eu/homepage.html (accessed: 18.06.2015).

76

- Hill B. & Bradley D. (2016). Comparative analysis of the FADN Data Collection Systems in EU-28, Paper prepared for presentation at the 90th Annual Conference of the Agricultural Economics Society, University of Warwick, England 4-6 April 2016, available at: http://www.aes.ac.uk/upload_area/member_documents/Berkeley_Hill_Hill_Bradley_AES2016_FINAL.pdf, (accessed: 9.07.2016).
- Keszthelyi1 K., Németh P. & Pesti P. (2005). Analysis of Hungarian agricultural subsidies on the basis of FADN database, Paper prepared for presentation at the 99th seminar of the EAAE (European Association of Agricultural Economists), 'title', place, country, date as in: August 24-27, 2005. available at: http://ageconsearch.umn.edu/bitstream/24689/1/pp05ke02.pdf, (accessed: 5.06.2016).
- Pejanović, R., Vasiljević, Z., Tomić, V., Ljiljanić, N. & Radišić, R. (2013), Problems in Record Keeping of Production and Economic Results of Family Farms in the Republic of Serbia, IV International Scientific Symposium "Agrosym 2013", Book of Proceedings, Faculty of Agriculture, University of East Sarajevo (B&H), Jahorina October 3-6, 2013, (ISBN 978-99955-751-3-7), 10.7251/AGSY13031181P, pp. 1181-1186.
- Regulation (EU) No 1318/2013 of the European Parliament and of the Council of 22 October 2013 amending Council Regulation (EC) No 1217/2009 setting up a network for the collection of accountancy data on the incomes and business operation of agricultural holdings in the European Community.
- Vasiljević Z. (2012). Uspostavljanje mreže računovodstvenih podataka na porodičnim poljoprivrednim gazdinstvima u Srbiji, u časopisu za pravo i ekonomiju evropskih integracija "Izazovi evropskih integracija", Tema broja "Poljoprivreda Srbije u procesu evropskih integracija", Broj 18. Izdavač Javno preduzeće Službeni glasnik uz podršku GIZ, Urednik Nikola Jovanović, ISSN 1820-9459, COBISS. SR-ID 1511881740, UDK 657:631.115.11, str. 27-40.
- Vasiljević, Z. & Zakić, V. (2008). Uvođenje knjigovodstva na individualna gazdinstva u funkciji lokalnog razvoja ruralne Srbije, Ekonomski vidici, Društvo ekonomista Beograda, XIII (2008), Br. 2, str. 447-460.
- Vasiljević, Z., Ševarlić, M., Filipović N. & Rahović, D. (2008). Uvođenje knjigovodstva na porodična poljoprivredna gazdinstva u Srbiji, u tematskom zborniku Evropska unija i Zapadni Balkan Izazovi za agrarnu privredu Srbije: Šta nam je činiti, Regionalna privredna komora Novi Sad i DAES, Beograd, str. 57-72.
- Vasiljevic, Z., Zaric, V., &Ivkov, I. (2012). Recording of accountancy data at the family farms in Serbia. Third International Scientific Symposium "Agrosym Jahorina 2012". November 15-17, 2012, Jahorina, Faculty of Agriculture, ISBN 978-99955-751-0-6: COBISS.BH-ID 3336984: pp. 599-604.



Vol. 62, july-september 2016, № 3 P. 79-91

Sveto Purić1

University of Kragujevac, Faculty of Law, Kragujevac, Serbia SCIENTIFIC REVIEW ARTICLE doi:10.5937/ekonomika1603079P Received: Jun 06, 2016 Accepted: August 31, 2016

Savić Božić Dijana²

Secretary of the Court of General Jurisdiction in Bijeljina, Bosna and Herzegovina

DIVISION OF THE COURTS IN BOSNIA AND HERZEGOVINA AND EFFICIENCY OF THE COURTS

Abstract

The economic aspect of the judicial system functioning in Bosnia and Herzegovina is complex and multifaceted, which implies the existence of not just one reason or narrow economic view on economic and financial possibilities of improving the judicial system. The basis of this view is related to the way in which judges, court officials, and even lawyers and litigants think about the justice system. Too much attention is given to the rules, but not enough to achieving concrete results. Timeliness is underestimated, both in procedural laws, and in the attitudes of people. The subject of this paper is investigating the cause of the inefficiency of the courts and delays in court proceedings, and working out specific principles and recommendations for their elimination, with the minimum expenditure of budgetary funds. The aim is to emphasize the role of human and systemic elements of the judicial system in BiH, as well as highlighting certain guidelines that are relevant to that system. Fair and timely resolution of cases results in high efficiency and good service delivery to the public, which can be emphasized by the fact that it is easy to delegate certain tasks to other staff, but responsibility cannot be delegated.

Key words: division of the courts, efficiency of resolving, case management

JEL classification: K23, K29

РАСПОРЕД СУДОВА У БОСНИ И ХЕРЦЕГОВИНИ И ЕФИКАСНОСТ СУДОВА

Апстракт

Економски аспект функционисања судског система у Босни и Херцеговини је сложен и вишестран, што имплицира постојање не само једног разлога или уског економског погледа на економско-финансијске могућности унапређења судског система. Основа оваквог погледа је везана за начин на који судије, службеници суда, па чак и правници и парничне странке размишљају о правосудном систему. Превише се пажње придаје правилима, а ни близу довољно постизању

¹ spuric@jura.kg.ac.rs

² ossudbn@teol.net

конкретних резултата. Правовременост је потцењена, како у процедуралним законима, тако и у ставовима људи. Предмет рада се састоји у истраживању узрока неефикасности рада судова и кашњења у судским процесима, односно израђивању конкретних начела и препорука за њихово отклањање, уз што мањи утрошак буџетских средства. Циљ је у апострофирању улоге људских и системских елемената судског система у БиХ, као и истицању одређених смерница које су од значаја за наведени систем. Правично и правовремено решавање предмета резултира високу ефикасност и добро пружање услуга јавности, што се може апострофирати тиме, да је лако поједине задатке делегирати на друго особље, али се одговорност не може делегирати.

Кључне речи: распоред судова, ефикасност решавања, управљање предметима

Introduction

Within Bosnia and Herzegovina (Federation), cantons operate virtually independently, each with a separate Ministry of Justice, which inevitably leads to inconsistencies in the functioning of the courts, which has a negative impact on their efficiency. The human factor and its unambiguous economically functional role in the judicial system emphasize the growing importance, through the timely and efficient delivery of court services.

An efficient court administration requires a functional composition. Divided structure is essentially inefficient and too expensive. In order to find solutions for a more efficient judicial system, there must be a certain consistency and accountability for results at the entity level.

It is necessary to emphasize the role of too restrictive and detailed rules governing the operation of the courts which seriously limit the local discretion of court administration, while ignoring the potential and interests of innovation of any kind within the judicial system. Presidents of courts must have the freedom while managing the court and must be interested in the leadership in such organizations. Competent judicial officers who have certain powers, including the appointed high court administrator to whom the president of the court can delegate administrative duties must be available to the top manager.

Within the economic dimension it is important to emphasize the role of financial resources that determine the reach of functionality of such system. The general lack of resources reduces the functionality of the court administration. The observed economic dimension can be seen from two angles: one is linked to the poor financial position of employees and the other to the poor material base of the judicial system. The work of poorly paid officials in poor material conditions, which are primarily reflected in the poor interior of the work space, poor office equipment etc., directly affect the low productivity in the operation of the courts. Budget funding mechanism is stiff, because it does not allow for transferring funds from one account to another, which would allow a court to operate more efficiently with fewer employees.

As the effectiveness of the work is dependent on funding, so the time is also a limiting factor. Cases that are in the process tend to become a bottleneck, because they last

ЕКОНОМИКА ЭС

for too long while waiting for hearings or other action. Accordingly, case management is another dimension of the economic aspect of improving the judicial system. The judiciary can achieve maximum productivity by managing their cases and their time. Changes in procedural standards can be very important to facilitate the efficient management of cases. Local judicial autonomy should enable the president of the court and other judges to delegate administrative and less judicial tasks to other officials, in order to ensure that their time is used where it is most needed.

1. Division of the courts in bosnia and herzegovina

An efficient justice system requires that the courts in the country are divided in a rational and cost-effective manner. Too many courts cause unnecessarily high budgetary allowances, and limited resources are divided into too many units on the field. As a result of the new administrative division into two entities and Brčko District after the war, the structure of the courts has changed, primarily for political reasons, and not for economical reasons or efficiency. In 1989, pursuant to the Law on Courts there were seven high courts in Bosnia and Herzegovina: Banja Luka, Doboj (today Republic of Srpska), Bihać, Mostar, Sarajevo, Tuzla and Zenica (in today's Federation) ("Official Gazette of Bosnia and Herzegovina" number 19/86 and 25/88 and 33/89). Today we have 10 cantonal courts (one in each canton), 5 district courts in RS and one in Brčko District - which makes 16 high courts in BiH.

The network of the courts of general jurisdiction/municipal courts in BiH includes 52 courts, while FBiH and RS are considering the establishment of several new ones. Republic of Srpska has 19 courts of general jurisdiction, 5 district courts, 5 district commercial courts, one High Commercial Court and one Supreme Court of the RS. Federation has 32 municipal, 10 cantonal courts and one Supreme Court of the Federation of BiH. Brčko District has one Court of General Jurisdiction and one Appellate Court.

The question of how many courts there should be and where they should be located is an important issue from the standpoint of efficiency - both for high and municipal courts. Too many courts that are too small is not economically justifiable.

The role of judicial authority includes all the duties and obligations that judicial authority should perform in the right way in order to achieve the final goal of efficient, independent and high-quality implementation of judicial authorities. The independence of judges is the foundation of judicial independence, and it is achieved by the manner of election of judges, permanence of judicial office, appropriate financial situation of judges and their social status. Judicial independence means that the court in its operation is bound only by the Constitution and laws, and that it is independent from all types of pressure, especially political.

The judicial authority in Bosnia and Herzegovina is extremely specific. The Dayton Constitution does not envision a classic division of authority in Bosnia and Herzegovina, thus the judicial authority is completely eliminated, except for the Constitutional Court of Bosnia and Herzegovina which has other competences. The Court of Bosnia and Herzegovina was established subsequently because of the fact that there was no court of general jurisdiction at the state level which would function as the supreme court of a state. This fact influenced the very realization of the role of judicial authority.

Court administration cannot be considered separately from the justice administration as a whole. Funds for the work of the courts, and the conditions in which the courts operate have a direct impact on the efficiency of the courts. In most countries justice administration is carried out by the Ministry of Justice (MoJ) or an independent body. There isn't a Ministry of Justice for the whole of Bosnia and Herzegovina. Federation and RS each have their own ministries, and Brčko District has the Justice Commission, which has a similar role. In addition, each canton in the Federation has its own Ministry of Justice. The Ministry of Justice of a canton carries out the justice administration.

The independence of the courts is one of the basic principles of democracy. However, independence is related primarily to the decisions of the judges. The administrative bodies responsible for the budget are obliged to provide courts with space, equipment for work and salaries that allow for their independence in performing their duties. On the other hand, budgetary bodies have the right to request from the courts to use budget funds in an efficient way.

Regular analysis of the court network is necessary to ensure uniform delivery of judicial services in the whole territory of the Federation of Bosnia and Herzegovina and the Republic of Srpska. In its role of an advisor, a ministry of justice passes standards, guidelines, provides training, IT equipment and other support to the courts. From the standpoint of cost-effectiveness of using funds, not each court should be responsible for the development of their own systems and operating methods. This is obvious when one thinks of the future computerized case management system. Ministries of justice should also be responsible, jointly working with the courts, for the initiation and developmentz of adequate resources for operation. MoJ should also be in the focus of legislative initiatives, and for the overall operation of the courts, ministry of justice can serve as a source of expertise and a forum for discussion of all matters of interest to the judiciary.

The political structure of the Federation makes justice administration unnecessarily expensive in this entity. Administrative responsibility for the courts is fragmented between ten separate cantons with ten separate ministries of justice. In some of these cantons there are only one to three municipal courts. In this situation, it may be difficult for different cantonal ministries of justice to develop and provide the necessary level of support and knowledge, especially in terms of justice administration. The resources are very limited in most of these cantons and courts receive different levels of support and services from different ministries.

It could be said from several aspects that there is a need for a single court system in the Federation. Books of Rules of the courts are used to write the rules, training programs and for the exchange of experiences and knowledge among the courts (Book of Rules on Internal Court Operations "Official Gazette of BiH" no. 57/08, 66/12, and Book of Rules on Internal Court Operations "Official Gazette of the Republic of Srpska" no. 09/14). The budget process and reporting system are two other areas where the single system would be beneficial for the entire Federation.

In order to improve efficiency and because of the unity of the system, there is a need for the justice administration which would be more centralized, at least at the entity level. The question of whether this centralized administration should be run by the Federal Ministry of Justice or, as in Brčko, an independent body, is not relevant from the standpoint of efficiency.

If because of the politics it is not possible to centralize executive authority of the courts in the Federation, then it is more important than ever to achieve close cooperation

82 ЕКОНОМИКА 😜

between cantonal ministries of justice. The Federal Ministry of Justice is in a position to coordinate the different cantonal ministries of justice, exchange information about what is happening in certain courts, and to make it easier - as much as possible - to create a single standard of operation of the justice in the entity.

In Bosnia and Herzegovina there are a number of factors that slow down the realization of high-quality, efficient and independent role of the judicial authority, which are the result of the current transition of the country. Given that Bosnia and Herzegovina is a complexly arranged country and that it aspires to join the European Union, it is of elementary importance to adequately regulate relations of all three levels of government, especially because the European space will become a single economic and legal area, with the final aim of efficient implementation of human rights and freedoms.

2. Efficiency of courts in bosnia and herzegovina

2.1. Court Administration

Result of efficiency is characteristic for the functioning of public institutions. When it comes to the court administration, the books of rules confirm the important role of a president of a court in the administration of the court by giving them a lower out-turn or they do not work on the cases at all (depending on the size of the court). In the election of the president of the court, it is important to find a person who, in addition to the fulfilment of conditions for the election of judges, has the skills and interest in management. Alternative election procedures that would take into account management skills should be considered, so that the appointment is done by non-political, judicial institution, as in many other European countries (Lukić 2000, 57).

If the court has a case backlog, the president of the court is obliged to issue a work plan in order to resolve the backlog. This may involve lobbying the Ministry or the legislative authorities for additional funding, re-routing resources of the court, or establishing priorities, inter alia, to resolve the backlog. In one court, the president of the court has asked each judge to report on the status of all cases older than three years providing an explanation of why these cases are so slow to resolve and suggestions for resolving them. Not only did the president of the court in this way came to a certain knowledge, but it served to introduce a certain responsibility and achieve motivation of judges (Sadiković 2009, 27). If the problem is not knowledge of the judges, but their willingness to work, the president of the court may resort to other methods. In the Federation and the Republic of Srpska, president of a court has the authority to start disciplinary procedures against judges who neglect their duties. President of a court should not hesitate to use these procedures when a judge deliberately does not fulfil the work obligations and refuses to resolve this problem (European Commission for Democracy through Law 2010).

The most important element in the work of a president of a court is that he/she acts as the "owner" of the court, with all the challenges that go with it. Court presidents who are struggling with a lack of funds resources (money, judges, staff, equipment, work space), may be tempted to use it as an excuse, and wash their hands of responsibility for the problems and failures of their courts. Although lack of resources is a significant

problem, president of a court is required to seek solutions to these problems as best he/she can, and to extract the maximum benefit from the resources at his/her disposal (European Commission 2013, 23).

In addition to deciding cases, judges in Bosnia and Herzegovina are also responsible for other administrative tasks. This includes, inter alia, supervising the land registry and the registry of business entities. In other legal systems, these tasks are performed by other ministries of the government and there is no particular reason for these jobs to remain within the judicial function (Leskovac, 2009, 545). Aims to improve the efficiency of the court may be:

- better organization of the court,
- better cooperation between the court departments,
- avoiding periodic work inefficiency,
- improving flexibility in the use of court staff,
- increasing efficiency in dealing with the influx of cases (e.g. specifically set a
 goal to reduce the number of hearings between the first hearing and the main
 hearing to an average of up to a specific day),
- improve the promptness (e.g. determine a goal to reduce the average time for resolving civil cases from 16 months to 10 months by a certain day next year),
- plan to reduce the case backlog (for example, set a goal to reduce the case backlog by 35% by a certain day next year),
- use of the possibilities that certain tasks of the judges are redirected to court staff,
- · avoiding unnecessary procedures,
- improving service to the public,
- establishing standards of service,
- improvement of working conditions (BiH 2009 Progress Report).

A more direct issue for the efficiency of the courts is almost inevitable misallocation of resources which are eventually granted. The budget adopted for each court is divided into categories, and the courts generally do not have the right to transfer funds from one category to another according to the priorities and most urgent needs of the court. Most of the budget is used for court staff, and most of the funds are used for salaries of judges and staff. Structure of staff in court is determined by the old and inflexible rules, which do not necessarily reflect the reality of the court operation. These rules should be amended so that the courts could use the staff in a more efficient and productive way. The courts also have to use more of the existing possibilities to redistribute the existing staff in order to resolve the most urgent needs of the court. The courts could, if allowed, reorganize their staff so they hire more associates and cut staffing in less critical areas as appropriate. Of course, this scenario with associates only serves as an example (Consultative Council of European Judges on the funding and management of courts 2012, 35). Court administration of each court must ensure keeping accurate all necessary records on the work of judges and legal officers. A set of ways of completing cases within a certain department and the value of these cases is established within the existing court departments defined by the Book of Rules of Court Operations and Book of Rules of the system for automatic case management in the courts for each type of case.

Presidents of the courts of general jurisdiction, cantonal/district courts, district commercial courts, the High Commercial Court in Banja Luka and the Appellate Court

of Brčko District of Bosnia and Herzegovina, aside from the job of a president of the court, must work directly on cases and achieve the following: in the courts with up to 6 judges and legal associates (with a secretary of a court) 70% of out-turn required by the Book of Rules, in the courts with up to 6 judges and legal associates (without a secretary of a court) 50% of out-turn required by the Book of Rules, in the courts with 7 to 13 judges and legal associates (with a secretary of a court) 50% of out-turn required by the Book of Rules, in the courts with 7 to 13 judges and legal associates (without a secretary of a court) 40% of out-turn required by the Book of Rules, in the courts with 14 to 20 judges, 30% of out-turn required by the Book of Rules, in the courts with over 20 judges, and legal associates, presidents should not work on cases, except where provided otherwise by a special decision or instruction of the HJPC (Article 14 of the Book of Rules on Orientation Measurements for Performance of Judges, Legal Associates and Other Court Employees in Bosnia and Herzegovina, "Official Gazette of BiH", number 2/14).

The work of judges, legal associates and presidents of courts who work on cases in the manner prescribed by book of rules is monitored and evaluated through the rules on out-turn realization, as well as records on the number, type and manner of completion of completed cases. At the end of the reporting period, work results are calculated based on the data from the CMS. If a judge or a legal associate worked on several different cases aside from their own during the reporting period, before calculating work results it is necessary to make the conversion and calculation of standards of all cases to the standard of primary cases of a judge or a legal associate. HJPC of BiH continuously works on finding optimal solutions for the organization of work processes in the judiciary, in order to achieve greater efficiency, timeliness and quality of the work of the courts, with special emphasis on the creation of conditions for more efficient resolution of cases in courts.

2.2. Case Management

President of a court is responsible for the total number of cases in court, starting with responsibility for the distribution of cases to judges (United Nations Office on Drugs and Crime, 2010, 19). However, each judge is required to manage cases well, without interference from the president of the court. President of a court, on the other hand, has a general duty to ensure that all cases are resolved within a reasonable time, and, if necessary, resolve the problem of case backlog by redistribution of cases or by using other methods. The cases should be allocated to judges as soon as possible, preferably on the same day when they are received. As already being done in most courts, cases should be distributed on the basis of random selection. The system must be transparent in order to avoid possible manipulation or even the semblance of manipulation. When strictly automatic system of random selection is established, then it can be controlled by staff, without further interference by the court president.

New judges often take cases from judges who have left earlier. Sometimes a judge is allowed to give a certain number of his/her cases to new judges and in this case they are given the oldest and most complicated cases. The court president should ensure that the new judge is not burdened disproportionately by large number of such difficult cases. Since the new judges are typically inexperienced, they should be given time for education, to work on reduced number of cases or for some time, for example three months, to work only on simpler cases (United Nations Office on Drugs and Crime 2010, 21). Hearings

should be scheduled at the earliest possible stage of case management. Inspection of the cases showed that, except for a few exceptions, courts generally schedule the first hearing quite early in the process of case management. Settlements in the early stages of the process have a lot of advantages. The settlement saves money to the parties, as well as time and mental and emotional burden of litigation. The settlement often leads to a solution which is more beneficial for both parties, as it will inevitably be more sensitive to the interests of the parties than a court decision. Settlements in the early stages of cases are also beneficial to the courts, because in that way courts use fewer resources.

Judges in Bosnia and Herzegovina are already familiar with the settlement hearings. Mediation could have a more systematic form in which a neutral intermediary helps the parties to find their own resolution of a dispute. The mediator helps the parties to identify the issues on which they disagree, facilitates discussion and helps the parties to find a solutions based on their fundamental interests. Mediation by judges is proposed as a mandatory part of civil proceedings in Brčko District. Mediation was also considered by the Work Group working on the new Law on Civil Procedure. Mediation by judges is useful for parties, as it can be done without additional cost. However, the judge who had the role of a mediator in the same case will not be able to pass a judgement. If a resolution cannot be reached through mediation, the case should normally be transferred to another judge.

Mediation by lawyers and other people trained in mediation is common in many countries. Then the parties have a choice of mediation, even before going to court. The courts may recommend mediation by a lawyer, but in the absence of volunteer offices for mediation, the parties usually have to pay a mediator themselves. The combination of court mediation and by a lawyer is one of the possibilities. These alternatives should be considered when writing the new Law on Civil Procedure (Judicial Reform and Government Accountability 2012, 27). Mediation skills and dispute resolution skills must be learned. Some training of judges and lawyers in the mediation has already been done. However, if mediation becomes a part of the Law on Civil Procedure, training on mediation will be needed for judges and lawyers in the whole country.

2.3. Resolving the case backlog

Resolving the issue of the case backlog in the courts of Bosnia and Herzegovina is the burning issue of the judiciary and other relevant institutions in Bosnia and Herzegovina. In 2002 this issue was identified as "one of the main issues in the justice system of Bosnia and Herzegovina" in a comprehensive report on the state of the judiciary in Bosnia and Herzegovina "Justice at the right time", prepared by the Independent Judicial Commission in preparation for the comprehensive reform of judiciary in this country. It was concluded that "the existence of a large number of pending cases is not only the result of court inefficiency; it can also be the cause of inefficiency". Unfortunately, the problem of case backlog is a major obstacle to the establishment and development of efficient judiciary and confidence of citizens in the judicial system of Bosnia and Herzegovina, because the case backlog increases every year.

Thus, the Annual Report on the work of the Council for 2014 presented a detailed analysis of statistical indicators which showed a negative trend which will probably continue in the period to come, especially in relation to the dynamics of inflow and

ЕКОНОМИКА ЭС

resolving the so-called utility cases, as outlined in one of the many initiatives of the High Judicial and Prosecutorial Council (HJPC) that all relevant factors in society are to tackle the problem of case backlog and contribute to solving a problem which is not exclusively a problem of judiciary.

According to the annual report of the HJPC for 2013, more than 50% of pending cases in the courts of Bosnia and Herzegovina is older than a year, while 9% of pending cases were initiated more than five years ago, but are still unresolved. In recognition of this problem, and bearing in mind that the slow resolution of court cases may constitute a violation of human rights under Article 6 of European Convention on Human Rights, which proclaims the right of individuals to a fair trial within a reasonable time, the HJPC adopted the "Guidelines for developing a plan to resolve old cases according to age of the initial document" in December 2010. It is important to note that the age of the cases is determined according to the age of the initial document, that is according to the time that a party to the proceedings is waiting to have their case decided. The key criterion that puts an obligation before the president of a court to draw up a plan for resolving old cases is a three-month out-turn of old cases per judge, taking into account the provisions in accordance with which certain cases are considered old, and as prescribed by the Guidelines.

In accordance with the Guidelines , out of 73 courts that exist in Bosnia and Herzegovina, 53 regular courts have taken the obligation of drawing up a plan for resolving old cases involving a total of 119,040 old cases, which should be resolved during 2014. It is noteworthy that 19 courts in BiH, in accordance with the Guidelines, did not have the obligation of drawing up a plan to resolve old cases for 2014, meaning that these courts are up to date in their operation.

The initial plan to resolve old cases according to their age for 2014 included 119,040 cases. In the period from 1st January 2014 to 31st March 2014, 19% of the plan was implemented (with the aim of achieving 100% implementation of the plan by the end of the year), and the average achieved approximate out-turn of judges to resolve old cases was 36%. The judges who drew up plans for resolving old cases are expected to achieve at least 40% annual estimated quotas by resolving old cases.

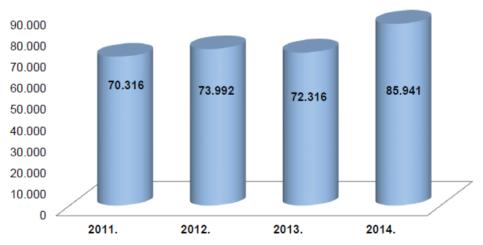
Activities of HJPC and the courts in 2014 were specifically aimed at improving the work of the courts by increasing the productivity of their work, thus reducing the number of pending cases. The result of these activities is that in 2014 a positive trend continued in increasing the productivity of the courts through applying the Book of Rules on Orientation Measurements for Performance of Judges and Legal Associates in Courts in BiH (Book of Rules on Orientation Measurements) and in reducing the number of non-utilities cases by 10%, which represents a reduction of 43,443 cases compared to the end of the previous year.

Courts	31 Dec 2011	31 Dec 2012	31 Dec 2013	31 Dec 2014
The Court of BiH	3635	3765	2867	2694
The Supreme Court of the FBiH	3276	3638	6568	8260
The Supreme Court of the RS	1648	1758	2012	2554
The Appellate Court of Brčko District	610	558	440	322
The High Commercial Court in Banja Luka	277	223	223	294
Cantonal courts	30922	32905	38136	44635
District courts	5951	6492	6201	6457
District commercial courts	15136	14133	13135	11029
Municipal courts	279676	273454	269097	230302
Courts of general jurisdiction	119812	111638	103052	92634
Court of general jurisdiction of Brčko District	10014	9140	8084	7191
Total	470957	457704	449815	406372

Table 1. The case backlog in courts

If we look from the point of realization of out-turn, the productivity of judges and legal associates in courts increased by 7% compared to the previous year, which represents an overall increase in productivity of the courts by 7% compared to the period before the application of the Book of Rules on Orientation Measurements ("Official Gazette of BiH", number 43/12). Although the implementation of the Book of Rules on Orientation Measurements showed excellent results, the HJPC will monitor and analyse the effects of the application of the Book of Rules on Orientation Measurements, and will, together with representatives of the judicial community work on its improvement with the aim of increasing the efficiency of the judiciary and better access to justice for all BiH citizens.

Thanks to the implementation of plans the courts resolve over 70,000 of the oldest cases every year. In 2014, the courts resolved 85,941 cases thanks to plans, which represents the increase in the number of planned resolved cases by 16% (13,625 cases) compared to 2013.



Graph 1. The trend of resolving cases in plans over the years

In addition to reducing the number of pending cases in courts, the HJCP paid special attention to the analysis of the proceedings length in 2014. To this end, since 2012, the HJCP has been implementing the Book of Rules on Timeframes for acting in cases before the Courts and Prosecutors' Offices in BiH ("Official Gazette of BiH", number 5/13, 101/13 and 61/14). The Book of Rules defines optimal and predictable deadlines for acting in cases.

Conclusion

There are many reasons why the judicial authority in Bosnia and Herzegovina is in a specific position. But we can safely say that the judiciary in Bosnia and Herzegovina has failed in realization of its role in an efficient and effective way. There are many reasons for this: lengthy court proceedings, a large number of pending cases, insufficient number of judges, poorly paid judges, corruption, low level of computerization, poor communication between the media and the judiciary, rare initiation of disciplinary proceedings against judges and prosecutors. The absence of a Supreme Court at the state level, which would harmonize judicial practice of regular courts and ensure the equality of all citizens before the law, is another reason why the judicial authorities in Bosnia and Herzegovina are not achieving their role well.

The judicial system of Bosnia and Herzegovina is burdened by a large number of pending cases and this is an important issue that must be resolved. Case backlog and delays in proceedings lead to the loss of confidence in those using the court system, because it seems that justice is unavailable. This situation negatively affects even the judges. The main reasons for delays in court proceedings are corruption, inefficient practices in the management of the court, inadequate legislation and lack of competent judges. Although a positive trend in the quality and quantity of work has been recorded, even in reducing the case backlog, there are still about two million (mainly utility) unsolved old cases in the whole of Bosnia and Herzegovina. Resolution of case backlog is a burning problem of judicial institutions in Bosnia and Herzegovina. High Judicial and Prosecutorial Council of Bosnia and Herzegovina and the Ministry of Justice of Bosnia and Herzegovina have adopted an action plan to reduce the case backlog in courts.

As a result of continuous inflow of new cases and the case backlog, there is a problem of insufficient number of judges. In addition to the number of judges, the problem is also the manner of their election, their training and the lack of permanent forms of training, for example in the field of ethics. In some countries there is a periodic evaluation of judges in order to assess their expertise and to assist them in further education. All this contributes to the development of professional and ethical judiciary which is the cornerstone of the rule of law.

Also, poor communication between the media and the judiciary influences the efficiency of the exercise of judicial authority. It is necessary to establish a balance between the needs of the public for specific information and to ensure the regularity of court proceedings. Initiation of disciplinary proceedings against judges and prosecutors contributes to accountability and transparency, and they are the basis for gaining confidence of the public in the judicial system. In order to initiate disciplinary procedures more often (when necessary), the public should be informed about the role of judges. The public must be informed about the standards expected of a judge. When the public

is better informed about the measures to ensure accountability, the public will have more confidence in judicial institutions.

It is a unique situation in the comparative constitutionality, according to which the judicial authority in Bosnia and Herzegovina has been reduced to the Constitutional Court of Bosnia and Herzegovina. This court also has a part of its jurisdiction which is characteristic of the highest judicial instances in some complex countries, but it is not the supreme court of the country. Constitutional courts usually do not belong to the judicial authorities, because it does not resolve classic legal disputes, but are competent to control the constitutionality and legality. In Bosnia and Herzegovina, it is necessary to establish a judicial system with the Supreme Court of Bosnia and Herzegovina at the top.

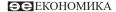
It would be extremely useful if the supreme court existed. There is a substitute which compensates for the lack of a Supreme Court to some extent, and it is so-called appellate jurisdiction of the Constitutional Court of Bosnia and Herzegovina. So, when it comes to protecting human rights and freedoms, if entity courts pass a final decision and a citizen, if he/she is dissatisfied with the decision, may appeal to the Constitutional Court of Bosnia and Herzegovina and so far it has worked in many cases to protect individual rights and contributed to the harmonization of judicial practice. However, unfortunately, it does not cover all relations of the judiciary, such as civil relations, economic relations and similar. For that there should be a supreme court, like in other countries which would have a task to harmonize the judicial practice in the entire territory of Bosnia and Herzegovina and to work on equality of all citizens.

References

- Evropska komisija za demokratiju kroz pravo (Venecijanska komisija), "Mišljenje o ustavnoj situaciji u Bosni i Hercegovini i ovlaštenjima Visokog predstavnika", CDL-AD, 2010.
- Izveštaj o napretku Bosne i Hercegovine u 2009. godini, Saopštenje Komisije evropskih zajednica Evropskom parlamentu i Veću/Savetu, Brisel, 14. oktobar 2009., SEC (2009) 1338.
- Judicial Reform And Government Accountability, *Bolje upravljanje predmetima za efikasnije sudove*, Projekat za reformu pravosuđa i odgovornu vlast, Beograd, 2012.
- Leskovac, S., Politika reforme državne uprave zemalja u tranziciji, s posebnim osvrtom na Bosnu i Hercegovinu, Sarajevo, 2009.
- Lukić, R., "Raspodela nadležnosti između zajedničkih institucija Bosne i Hercegovine i entiteta", Zbornik radova sa naučnog skupa u organizaciji Akademija nauka i umetnosti Republike Srpske, Banja Luka, 2000.
- Mišljenje broj 12. Konsultativnog veća evropskih sudija o finansiranju i upravljanju sudovima, sa osvrtom na efikasnost pravosuđa i na član 6. Evropske konvencije za zaštitu ljudskih prava i osnovnih sloboda, Strazbur, 2012.
- Nezavisna pravosudna komisija Bosne i Hercegovine, *Pravda u pravo vreme*, Izveštaj Projekta reforme sudske uprave, Sarajevo, 2002.

90 EKOHОМИКА **ЭЭ**

- Pravilnik o orijentacionim merilima za rad sudija, stručnih saradnika i drugih zaposlenih u sudovima u Bosni i Hercegovini, ("Službeni glasnik BiH", broj 2/14).
- Pravilnik o unutrašnjem sudskom poslovanju ("Službeni glasnik BiH" br. 57/08, 66/12)
- Pravilnik o unutrašnjem sudskom poslovanju ("Službeni glasnik Republike Srpske" br. 09/14)
- Pregled sistema pravosuđa i statistike "Integralni registarski broj predmeta i upotreba elektronskog sistema za upravljanje predmetima, i implikacije za statističke podatke", u okviru Projekta: EU, United Nations Office on Drugs and Crime, *Razvoj instrumenata monitoringa za pravosudne i policijske institucije Zapadnog Balkana 2009-2011.*, Sarajevo, 2010.
- Sadiković, Ć., "Za državu novog stoljeća Bosna i Hercegovina kao savremena demokratska država", Fond otvoreno društvo Bosne i Hercegovine, 2009., Projekat pod naslovom "Ustav Bosne i Hercegovine ka novim rešenjima", 16. novembra 2009.
- Specifična iskustva novog pilot prikupljanja podataka u Bosni i Hercegovini, 2010. godine, u okviru Projekta: EU, United Nations Office on Drugs and Crime, *Razvoj instrumenata monitoringa za pravosudne i policijske institucije Zapadnog Balkana 2009-2011.*, Sarajevo, 2010.
- Ured koordinatora reforme javne uprave, Sistemski pregled javne uprave Završni izveštaj, ECO Evropska Komisija, Sarajevo, 2013.
- Visoko sudsko i tužilačko veće Bosne i Hercegovine, *Godišnji izveštaj za 2014. godinu*, Visoki sudski i tužilački savet Bosne i Hercegovine, Sarajevo, 2015.



Slavica Jovetić¹
Jelena Purić²
University of Kragujevac,
Faculty of Economics, Kragujevac

SCIENTIFIC REVIEW ARTICLE doi:10.5937/ekonomika1603093J Received: Jun 06, 2016 Accepted: August 31, 2016

COMPARATIVE ANALYSIS OF FINANCIAL AND NON-FINANCIAL PERFORMANCE ELEMENTS OF JOINT-STOCK COMPANIES

Abstarct

The aim of the paper is to measure concurrence between the ranking of companies listed on the Belgrade Stock Exchange (BELEX) and their financial and nonfinancial performance elements, i.e. to measure to what extent these performance elements are included in the criteria for listing shares. By employing statistical/ econometric methodology, an analysis including 10 companies from the BELEX15 index basket was conducted. The paper is organized in four consistent sections. The first one relates to the analysis of the criteria for listing of companies on the BELEX and the ranking that the company receives based on the mentioned conditions. The second section deals with the analysis of the financial performance elements of the mentioned companies, namely: EPS (Earnings per Share), P/E ratio (Price-Earnings ratio), P/B ratio (Price-to-Book ratio) and ROE (Return on Equity) of the company. In the third section of the paper, the non-financial performance elements which are included in the ISO 9004:2009 Self-Assessment Tool and considered key components of company's success are analyzed; these are: managing for the sustained success of a company; strategy and policy; resource management; processes management; monitoring, measurement, analysis and review; improvement, innovation and learning. In the fourth section of the paper a comparative analysis of the positions of surveyed companies was carried out based on the three main criteria set out in the preceding sections of the paper. Furthermore the correspondence between the mentioned criteria was measured.

Keywords: joint-stock companies (JSC), financial performance elements, non-financial performance elements, ISO 9004:2009, Belgrade Stock Exchange (BSE)

JEL classification: C1,C8,G11

¹ sjovetic@kg.ac.rs

² puricjelena1@gmail.com

УПОРЕДНА АНАЛИЗА ФИНАНСИЈСКИХ И НЕФИНАНСИЈСКИХ ПЕРФОРМАНСИ АКЦИОНАРСКИХ ДРУШТАВА

Апстракт

Циљ рада да се измери сагласност између позиције предузећа на Беградској берзи (BSE) и њихових финансијских и нефинансиских перформанси, односно да се измери колико су у критеријуме за листирање акција укључене финансијске и нефинансијске перформансе. Анализа, помоћу статистичкоеконометријске методологије, обухватила је 10 предузећа која се налазе на листи BSE у корпи индекса Белех 15. Рад се састоји од четири конзистентне иелине. Прва се односи на анализу критеријума за листирање предузећа на листи BSEc и позицији које предузеће заузима на основу тих критеријума. Други део, односи се на анализу њихових финансијских перформанси. Анализиране су следеће финансијске перформансе, односи: ЕПС (нето добитак по акцији), Π / E (цена/ нето добитак по акцији), Π / B (цена /књиговодствена вредност) и Р?? (принос на капитал) тих предузе?а. Тре?и део рада односи се на анализу нефинансијске перформансе које представљају оцене кљу?них перформанси успеха дефинисаних у упитнику за самооцењивање предузе?а у ISO 9004:2008 и то су: руково?ење, стратегија и политика, ресурси,ОЕ (принос на капитал) тих предузећа. Трећи део рада односи се на анализу нефинансијске перформансе које представљају оцене кључних перформанси успеха дефинисаних у упитнику за самооцењивање предузећа у ISO 9004:2008 и то су: руковођење, стратегија и политика, ресурси, процеси, праћење и мерење, побољшавања, иновације и учење. У четвртом делу рада урађена је компаративна анализа позиције предузећа на основу сва три критеријума и измерена сагласност критеријума.

Къучне речи: акционарска друштва, финансијске перформансе, нефинансијске перформансе, ISO 9004:2009, Београдска берза

1. Introduction

Serbia's capital market has a long tradition, therefore, it has always been interesting for analyzing potential investors. (Dugalic and Stimac, 2007) More than a century has passed since the period when BSE had an upward development trajectory in each segment. Organizational system of BSE in the last 10 years, together with its information system and skilled staff helped this stock exchange catch up with the modern trends. The companies whose stocks are traded make the very essence of the stock exchange market. New organization of the market brought about by the implementation of the new Law on Capital Market (Official Gazette RS, No. 31/2011) has contributed to filtering out the most liquid stocks; it has also brought closer to the listing those less liquid stocks by implementing systematic changes. Hence, the appropriate conclusion is that the domestic capital market is developing in positive direction and that the significant progress has been made in this area.

BSE establishes the conditions for listing of companies [1]. These conditions are set out in the BSE Rules on Listing and they are also decisive for ranking of companies in

the domestic market. (Dugalic and Stimac, 2007) Among the most important conditions are the following: unqualified opinion on the Report on the Audit of the Annual Financial Report of the JSC, the minimum amount of issuer's capital and the condition that in a free float there is at least 25% of the total number of issued shares. The measuring of financial performance elements in this paper was performed on the basis of the relationships of certain items of the financial statements which had been approved by the auditors. Key concept in measuring the financial performance elements of companies whose shares are traded on the stock exchange is market capitalization, which is defined as the value that is obtained by multiplying the number of shares outstanding by the current price of a share. The difference between the market capitalization and the capital contributed by investors represents the market value added (MVA). The indicators of market value include: EPS (Earnings per Share), P/E (Price/Earnings ratio), P/B (Price-to-Book ratio) and ROE (Return on Equity). (Helfert, 2001; Chordia, et al., 2003, Easton, 2004). Unqualified opinion is one of the basic conditions for the listing of a company. In addition, the aforementioned indicators provide investors a clear picture concerning company's operations, given that they are calculated on the basis of financial statements certified by an auditor. (Beaver and Ryan, 2000, Danielson and Dowdell, 2001). Together with the mentioned financial performance indicators, the conditions for the listing of a company include the psychological effect that investors transfer to the market. Furthermore, the information users are forced to re-evaluate the quality of the reports issued by the independent auditors, regardless of the existence of legal and professional constraints (Malinic, 2009). What is particularly interesting is the analysis of Goodwill which is considered a very important item in business valuation and which in each report equals 0 (Ramanna and Watts, 2009). Thus, considering the domestic market, the value of the company cannot be analyzed in terms of this indicator.

BSE manages two listing segments - Prime Listing and Standard Listing (the most liquid stocks) which make the regulated market, as well as one additional segment - the Open Market (segment of the regulated market which is not listing) which has 88 shares from a total of 87 issuers. These three segments represent the exchange market, while the fourth segment is a multilateral trading platform MTP BELEX where the securities that do not fulfill the conditions for admission to one of the segments of the regulated market are traded (for more information please see: Jaksic, 2011).

Modern economics has shown that without fostering intellectual property and one's own research capacities, no company can have secure future. This is supported by the research in 2005, conducted by Hall, Jaffe and Trajtenberg, which confirmed that stocks of those companies that are innovative and have their own patents are actually more competitive on the market, i.e. according to the mentioned research stock prices of these companies outprice the stocks of other companies for about 3%. The development of the balanced scorecard (BSC) resulted in a new concept whose main point is that those companies which focus only on financial assets are no longer able to sustain competitive advantage. Traditional systems of measuring the efficiency of the company were abandoned as obsolete even two decades ago. This is confirmed by an article titled "Chief Financial Officer" from 1995 which reads that 80% of large U.S. companies want to change their performance measurement systems. An efficient and effective performance measurement system allows the company to measure and monitor its performance in accordance with the defined strategy (Domanovic, 2013). Therefore,

a significant part of the analysis is based on non-financial performance elements defined by a new international standard ISO 9004:2009.

All the features and principles of TQM (Total Quality Management, "Business Excellence," "Best Practice") were included in the last revision of ISO 9000 family of standards done by the International Organization for Standardization (ISO). Business Excellence is characterized by the following features: an integrated system of global quality (interaction between all activities, with the goal of effective and efficient use of resources); quality refers to the system /processes/products and the quality staffing; the company keeps all the documents as prescribed by the quality system; independent, external assessment, periodic internal and external audits of implemented quality system; management of quality costs; quality system is applied to non-production functions; application of statistical, engineering and management methods in all horizontal and vertical processes; continuous analysis, measurement, monitoring and improvement of the system/process/staff/ products; implementation of all principles of the Business Excellence (from leadership to continuous improvement and process approach). For more information on the advantages and disadvantages of the ISO 9000 family of standards please see: Suganthi and Samuel, 2004 Isaksson, 2006; Nelsen, et al., 2007; Brouch, 2011; Buntak, 2011; Jovetic, 2012, Dale, Wiele and Iwaarden, 2013. ISO 9000 family includes three standards, these are:

- ISO 9000 Quality management systems QMSs (covers the basic concepts and language) defines the fundamental terms relating to: quality, management, organization, products and processes, principles, compliance, documentation, testing, verification and quality assurance of measurement processes.
- ISO 9001 Quality management systems QMSs (requirements) specifies the requirements for the quality management system with an emphasis on enhancing the customer satisfaction.
- *ISO 9004* Quality management systems QMSs managing for the sustained success of an organization through efficient and effective quality management system; better understanding of the wider environment in which companies operate through learning and appropriate application of improvements and/or innovations.

This international standard provides guidelines to organizations for achieving sustainable success in a complex, challenging and changing environment by using quality management approach (Hoyle, 2009). It requires three hard management necessities: a good management system, statistical process control and teamwork (Oakland, 2006). The basic idea, which is achieved through the application of quality principles, is the transformation of a vertical, function oriented organization to a process oriented one. The organization implies a network of processes, while transformation refers to improving the measurement of financial performance in terms of quality management where the managed performance represents the capability of the process to meet the needs of customers/interested parties. Lastly, by the application of the system approach to management the specified goals are achieved and the needs of interested parties are met in a balanced way.

The section 8.3.2 of ISO 9004 standard puts special emphasis on the key performance indicators (KPIs). The KIPs are factors that are within the control of

96 EКОНОМИКА **ЭС**

the organization and are critical for its sustained success. (ISO9004) As a result of the adoption of the new business goals, a number of quantitative and qualitative and financial and non-financial indicators are required in order to obtain relevant information that is measurable, accurate and reliable, as well as usable for the implementation of corrective actions that will effectively and efficiently indicate the continuous improvement of the systems/processes.

For the purpose of surveying selected 10 companies, whose stocks are traded on the Belgrade SE, an assessment tool (i.e. a questionnaire) was used. This assessment tool is prescribed by the ISO 9004:2009 and its template is given in Annex A of the mentioned standard. The mentioned tool contains questions that companies can use in their self-assessment (*self-assessment is a comprehensive and systematic review of the activities of the company and its performance in relation to its degree of maturity.* (ISO9004) Questions are related to the KPIs and particular subprocesses in the enterprise/items set out in the standard. Nine questions refer to KIPs, item 4 of the standard contains four questions, item 5 includes 4 questions, item 6 has 8 questions, item 7 contains 3 questions, item 8 includes 9 questions and item 9 has 3 questions. According to the true answers given to these questions an organization can be categorized into the following levels of maturity in terms of sustainable success: level I-Basic level - informal approach, level II-Reactive approach, level III-Proactive approach, level IV-Systematic approach and level V-Best Practice. The lowest possible score is 41 points and the highest 205 points.

The main goal of the self assessment is to determine a plan of measures for improvement and/or innovation, which represents an input element for planning and prioritizing activities and/or innovations that would allow certain elements to be lifted to a higher level. Information gathered from the self-assessment can be used for: determination of past, present and future trends of systems/processes; identification of the achieved levels of quality concerning all KIPs and other performance elements; establishing measures and actions to unblock bottlenecks; producing guidelines for necessary improvements. The self-assessment stimulates benchmarking and dissemination of knowledge throughout the company (internal benchmarking), as well as comparisons with other companies (external benchmarking).

The research presented in this paper focuses on the indicators of the achieved quality levels of 10 joint-stock companies that agreed to fill out the self-assessment questionnaire and which fall in the BSE categories of the Prime Listing, the Standard Listing or the Open Market.

The aim of the paper is to assess the following by employing analysis: the position of particular company on the BSE; financial performance elements, non-financial performance elements and compliance/impact of financial and non-financial performance elements on the listing conditions; significance of the mentioned elements; measurement of the effect of mentioned performance elements on the development of the company and improvement of its position on the capital market.

General hypotheses:

- Null hypothesis 1 (H_{10}): BSE listing conditions include financial and non-financial performance elements.
- Null hypothesis 2 (H_{20}): There is an optimal balance between the financial and non-financial performance elements concerning the BSE listing conditions.

Specific hypotheses:

- *Null hypothesis 3 (H₃₀)*: There is no statistically significant effect of independent variables: market capitalization, P/E, P/B, EPS and ROA on the dependent variable volume of shares sold.
- *Null hypothesis 4 (H*₄₀): There is no statistically significant effect of independent variables: management assessment, leadership, strategy and policy, resource management, processes, monitoring and measurement, improvement, innovation and learning on the dependent variable overall assessment of the level of quality and maturity of the company.
- Null hypothesis 5 (H₅₀): There is no statistically significant effect of non-financial independent variables QMS on the dependent variable –volume of shares sold.
- *Null hypothesis* 6 (H_{60}) : There is no significant correlation between the position of the companies listed on BSE and financial performance elements, also there is no correlation between the position the company listed on BSE and non-financial performance elements.

In addition to these specific null hypotheses, also other specific null hypotheses are defined in the paper, which stem from applied statistical/econometric methodologies: regression and correlation analyses (hypotheses about multicollinearity, heteroscedasticity, autocorrelation and the assumption on distribution of random error and its arithmetic mean, etc.).

2. Research methodology

Type of research – Empirical analysis of the position of the companies on Belgrade SE and their financial performance elements was carried out for those companies that agreed to fill out the ISO 9004:2009 self-assessment tool, i.e. the questionnaire. Financial statements make the primary resource for the data collection on financial performance elements, while the data on non-financial performance elements was obtained from a questionnaire filled out by the executives of the listed companies. The questionnaire was distributed to all the companies whose shares are listed, as well as to those that are on the Open Market. The survey was conducted from June to October 2013 and it consisted of two parts: Part I related to the key elements of success (KES), performance elements and the level of maturity referenced against each performance element (scores range from 1 to 5, where 1 stands for the lowest level and 5 for the highest level). Respondents chose scores according to their self-assessment of the development of the particular KES. Part II consisted of sub-points /sub-processes, which were also used to determine the level of the company's maturity. Each element of success was broken down into several questions, thus, for example, a question about improvements and learning had three sub-questions which described in more detail the quality level achieved in particular companies.

Sample – The research was conducted on a sample of top 10 companies listed on the BSE. For the empirical analysis of the position/listing on the BSE and the achieved level of development, the following joint-stock companies were considered: NIS a.d. headquartered in Novi Sad, Komercijalna Banka a.d. headquartered in Belgrade, Metalac

ЕКОНОМИКА ЭС

a.d. headquartered in Gornji Milanovac, Tigar a.d. headquartered in Pirot, AIK Banka a.d. headquartered in Nis, Voda Vrnjci a.d. headquartered in Vrnjačka Banja, Frikom a.d. headquartered in Belgrade, Credy Banka a.d. headquartered in Kragujevac, Čačanska Banka a.d. headquartered in Čačak and Dunav Osiguranje a.d. headquartered in Belgrade (Belgrade Stock Exchange: 2012). Executives of 3 out of 7 companies listed on the BSE filled out the questionnaire, which makes 42.86% of the total listed companies. The remaining 7 companies from the research sample are on the Open Market.

Statistical methodology – All collected data are stored in the Microsoft Excel 2007 and SPSS (Statistical Package for the Social Science for Windows, version 19) databases. For the research purposes regression and correlation analysis were applied. The collected data were statistically analyzed by using the SPSS (Statistical Package for the Social Science for Windows, version 19.0) (Pallant, 2011, Jovetić, 2007, Tabachnick & Fidell, 2007). For the purpose of determining statistical significance, a confidence level of $\alpha=0.05$ was used .

3. Research results

3.1. Belgrade Stock Exchange

The second section of the paper points out that the BELEX is similar to other stock exchanges around the world and that new organization of the market brought about by the implementation of the new Law on Capital Market (Official Gazette RS, No. 31/2011) has contributed to filtering out the most liquid shares; it has also brought closer to the listing those less liquid shares through carrying out systematic changes. In this section of the paper the Warsaw Stock Exchange (WSE) will be presented, as well as the stock exchanges of countries in the region. Furthermore, the selected indicators that determine the position of the company on the BSE will also be considered.

Compared to Warsaw SE which lists a large number of companies and their stocks, in case of the BSE this number is reduced to 8. The main problem is the different way of privatization of large public companies which in Poland was conducted through initial public offering (IPO), while in the domestic market privatizations were carried out by means of tenders and auction sales. In Serbia, the initial proposal was that the privatizations of the largest public companies were to be done via the capital market, but it was dismissed later. By initial public offering the shares of stock in a company are sold to the general public, i.e. a company "goes public". However, prior to going public, particular company must change its ownership structure from public company to open joint-stock company. (Mumović, Pavlovic, 2010) Potential investors buy the stock of, until that moment, largely unknown companies (Certo, 2003) which are characterized by low liquidity and high risk. Such stocks are typical of emerging markets - all markets in South-Eastern Europe (SEE) and the former socialist countries, such as Poland. WSE today plays a key role in obtaining "fresh" capital from the companies and has a large number of index baskets ranging from those that include the most liquid stocks to ones characterized by the values of stocks in certain sectors. What is BELEX15 for the BSE that is WIG30 for the WSE. WIG30 includes the most liquid stocks of 30 largest companies on the WSE. Compared to BELEX15, which consists of the stocks of 8 listed and 7 companies from the Open Market

we can say that the difference between these capitalization-weighted indexes is drastic. The reason behind this situation is that despite the banking crisis in 2009, 6 out of 18 IPOs were conducted on the WSE. There were no IPOs on BSE, although several companies wanted to acquire equity in this way (Mumović, Pavlovic, 2010).

A stock market which is in terms of its development closer to WSE is the Zagreb Stock Exchange (ZSE), where a number of public companies were privatized by means of the initial public offering. Namely, IPOs facilitated the development and continuity of the ZSE which today includes stocks of 241 companies on its Regulated Market, out of which 171 companies trade their stocks on the Regular Market, 77 on the Official Market and 7 on the Prime Market. In contrast to BELEX whose Regulated Market has 2 segments - Prime Listing and Standard Listing, ZSE's Regulated Market includes 3 segments. The main reason for this is the initial public offering in relation to BSE which one of the main conditions for any company was to offer at least 15% of its shares to the general public. It is also one of the main conditions for entering the Regular Market. The criteria for the other two segments of the Regulated Market are pretty much the same as those of BSE, only on ZSE the market capitalization for the Prime Listing is € 13,069,710.21 (as of 9.12.2013.g.), while the amount required on BSE is € 10,000,000. Prior to the commencement of the economic transition these two stock exchange markets were identical. It could even be said that BSE was slightly more advanced. However, today we are faced with serious development of WSE capital market and a slight deterioration of BSE. A comparative analysis of the market capitalization for all three markets will be addressed in a later part of this paper.

As already mentioned, the executives of 10 companies whose shares are traded on the Belgrade SE completed the questionnaire related to non-financial performance elements; therefore the basic performance elements related to the exchange market will be presented on the example of the company with the highest and the company with the lowest score:

- 1. **Nis, a.d. Novi Sad** Shares of the company are admitted and traded on the Prime Listing, which means that this company meets the most stringent conditions adopted by the administrative bodies of BSE. The total number of issued shares on 15.1.2014 was 163,060,400 and the price of the share on the same day was 938 RSD. Highest share price of 1,020 RSD was achieved in April 2013. From August 2010, i.e. the first issuance of shares, by the end of 2013, the average volume of shares sold amounted to 23,186, while the turnover amounted to 14,224,440.88 RSD.
- 2. **Voda Vrnjci a.d. Vrnjačka Banja** Shares of the company are traded on the Open Market. The total number of issued shares on 15.1.2014 was 114, 787.00, while the price per share was 5,997 RSD. Highest price of 7,000 RSD per share was reached in January 2013. Since August 2006 by the end of 2013 the average volume (of shares sold) was 84, while the turnover amounted to 734, 636.23 RSD.

3.2 Regression analysis of the independent variable financial performance elements

The regression analysis was used for identifying financial indicators that have the greatest effect on the volume of shares sold. The dependent variable is the volume of shares sold, i.e. the average value of the shares sold in the period 1.10.2012-1.10.2013. The independent variables used are values of the following: market capitalization, EPS, P/E, P/B and ROE as of 01.10.2013.

100 EKOHOMИKA **ЭС**

We experimented with different curves. Regression analysis showed that the given data are best fitted to linear function. Statistical significance of the regression line is high (Snedecor's F random variable is 34.086 and p = 0000). Since this is a small sample, adjusted R squared is 76.8 and it indicates that 76.8% of the variation of the dependent variable *volume of shares sold* is explained by the variations of independent variable ROE. The Durbin–Watson (DW) statistic is 1.439 and is greater than the upper limit (dg = 1.32), so there is no positive first-order autocorrelation; moreover DW is less than d < 4-dg < 4-dd (1.439 < 2.70 < 3.12) which means that there is also no negative first-order autocorrelation. Student's t-statistics is 5.383 and is greater than the theoretical value t0.05; 9=2.2621; and p=0.000. There is no multicollinearity in the model (VIF=1).

Model Summaryc,d Change Statistics Adjusted Std. Error of Durbin-R Square Sig. F Model R R Square^b F Change df1 df2 R Square the Estimate Watson Change Change .791 4835,81158 1.431 889 768 34 086 000

Table 1: Statistical indicators

Table 2: Presentation of the values of correlation coefficients and collinearity

		Unstandare Coefficient	Unstandardized S Coefficients (t	Sig.	95,0% Confidence Interval for B		Colinearty Statistics	
		В	Std. Error	Beta			Lower Bound	Upper Bound	Tolerannce VIF	
1	ROE	707,778	121,230	,889	5,838	,000	433,536	982,019	1 1	

The Shapiro-Wilk test for the normality of the random variable was also conducted. Since the sig. equals 0.549 (> 0.05), the null hypothesis that the random variable can be approximated by a normal distribution is confirmed. The arithmetic mean of the residual standard deviation equals zero.

Table 3: Test of normality in residuals

Tests of Normality								
	Kolmogoro	v-Smirn	OV ^a	Shapiro-Wilk				
	Statistic	df	Sig.	Statistic	df	Sig.		
Error for Number of share transaction with ROE from CURVEFIT, MOD_10 LINEAR	,170	10	,200°	,940	10	,549		

In this case the alternative hypothesis H_{31} is considered. It means that the linear regression is statistically significant and that both the financial variable ROE and market

a. Predictors: ROE

b. For regression through the origin (the no-intercept model), R Square measures the proportion of the variability in the dependent variable about the origin explained by regression. This CANNOT be compared to R Square for models which include an intercept.

c. Dependent Variable: Number of share transaction

d. Linear Regression through the Origin

capitalization have a statistically significant impact on trading volume. Based on selected regression type the elasticity coefficient can be calculated. By introducing substitution [2] in the formula for calculating elasticity coefficient the following result was obtained for the linear function: if the ROE changes by 1%, the trading volume will increase for 94,73%.

Furthermore, based on the same criteria, we can rank the companies according to the values of this indicator. Companies in which this indicator is greater than 10% have a high return on equity. In this particular case such companies are *NIS a.d. Novi Sad i Metalac a.d. Gornji Milanovac*.

Considering that among financial indicators, market capitalization has a statistically significant effect on dependent variable volume of shares sold (F statistic 19,25; t=4,865 and p=0,001), this indicator will be used for comparing BELEX with the stock exchanges in the South East Europe (SEE). The following graph shows the values of the market capitalization of the stock exchanges in the region; the position of BELEX compared to other transition countries, some of which are now the EU member states, can clearly be seen. Based on this graph, it can be concluded that the Zagreb SE is the leading stock exchange in the region concerning the observed five-year period.

Tržišna kapitalizacija

Zagreb SE Bucharest SE BELEX BSE - Sofia Ljubljana SE

Graph 1: The development of SEE stock exchanges, as measured by market capitalization

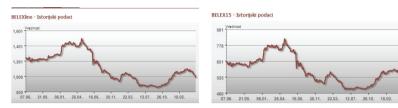
Source: Annual report for 2012, BSE

Low turnover on BSE is the result of the absence of IPO, as well as the global economic crisis which has directly affected the domestic capital market. The movements of the two most significant indexes of BSE - BELEX15 and BELEXLine best represent the situation on the market. The position of BSE in terms of other stock exchanges can accurately be determined by conducting a comparative analysis of the movements of the two mentioned BSE indexes with the movement trends of WSE indexes and SETX (South East Europe Traded Index). Graphs 6 and7 show the values of the WIG30 index [3] and SETX index [4]. A profound difference is observed not only in the index values, but also in the volume of their fluctuation. On 28.12.2012 WIG30 stood at 2582 index

102 ЕКОНОМИКА 😜

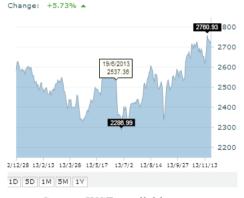
points, while on the same day BELEX15came to only 520 index points; however, also on the same day CROBEX stood at 1738 points which clearly indicates that ZSE is steadily taking the leading position in the region.

Graphs 2 and 3: Movements of BELEX15 and BelexLine observed in a three-year period



Source: BSE, available at: http://www.belex.rs/eng/ (accessed 10 November 2013)

Graphs 4: Movements of WIG30



Graphs 5: Movements of SETX



Source: WSE, available at: http://www.gpw.pl/wig30en, (accessed 10 November 2013)

Source:ZSE, available at: http://zse.hr/default.aspx?id=44101&index=CROBEX (accessed 10 November 2013)

3.3. Regression analysis of the independent variable non-financial performance elements

3.3.1 The impact of independent non-financial performance on the KEU sum score

This model identifies which of the key elements of the ISO 9004:2009 [5]standard, have the greatest effect on the dependent variable *overall assessment of KPIs*. Scores are determined based on the results of the questionnaires completed by persons employed in selected 10 companies, which are relevant for drawing the conclusion on the significance of non-financial performance elements that are significant for the development of particular company and its better market position. Assumptions concerning regression analysis are identical to those used in the analysis of financial indicators.

Regression analysis showed that the data can be best approximated by logarithmic function. This was determined by comparing the values of Snedecor's F statistics. Four variables remained in the model, namely: *learning*, *performance measurement*, *management and priorities for improvement*. A linear function was most suitable for the data. Thus, 6 variables remained in the model; however, linear smooth hyper-surface had lower Snedecor's F statistics.

The next analysis shows the results of the linear regression. The variables which remained in the model were those relating to: learning, performance measurement, leadership approach and the manner in which the decisions on the improvement priorities are made.

The correlations between the variables in the model show that there is a relationship between the dependent variable and independent variables, since the values of Pearson correlation are higher than 0.3.

Coefficients of determination show that 99.7% of the variations of the dependent variable *overall assessment of KPIs* are explained by the variation of independent variables that remained in the specified model. Given the small sample used in the model, the adjusted coefficient of determination, i.e. the adjusted R squared, since it is a more precise indicator, was introduced and its value here is 99.4%. Also, at the end of the table the value of the DW statistic is given, which is 1.053 and which is within the range of the DW critical values for k = 1 and n = 9 (dd dg = 0.82 = 1.32). The test is undefined for the positive first-order autocorrelation. Since 1.053 < 4-0.82 < 4-1.32 we can also conclude that there is no negative first-order autocorrelation.

Model Summary ^e										
Model I	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					- Durbin-
					R Square Change	F Change	df1	df2	Sig. F Change	Watson
1	,862ª	,744	,712	,05252	,744	23,218	1	8	,001	
2	,946 ^b	,894	,864	,03603	,151	9,997	1	7	,016	
3	,994°	,988	,982	,01318	,093	46,330	1	6	,000	
4	,998 ^d	,997	,994	,00756	,009	13,232	1	5	,015	1,053

Table 4: Illustration of statistical indicators

The significance of each independent variable is p=0.000, which indicates that each variable has significant statistical effect on the dependent variable. Snedecor's F statistics shows that the model, as a whole, is also statistically significant given that the values of F statistic are F=13.232, and t statistics t1=4,819; t2=3,162: t3=6,807; t4=3,638.

Since the variance inflation factor (VIF) is smaller than 5 for all variables in the model, there is no collinearity.

The testing for heteroscedasticity was conducted and Geisler's test was applied. Given that 4 variables remained in the model, all four of them were regressed in relation to the absolute value of the residuals. The highest Snedekor's F statistic has the variable monitoring of results achieved by implementing particular strategies; F = 0.945, p = 0.476. Snedekor's F statistic is less than the theoretical value of F(0.05; 3; 9) = 3.86 and $p > \alpha$, which confirms that there is no heteroscedasticity.

104 ЕКОНОМИКА 🗩

Empirical data are best adapted to linear regression. The hypothesis on the validity of assumption on a random variable was tested. The null hypothesis assumes that random variable can be approximated by a normal distribution. The alternative hypothesis assumes that a random variable cannot be approximated by a normal distribution. The Shapiro–Wilk test was applied (small sample). Considering that p = 0.485 (> 0.05), the assumption on the normality of the random variable distribution is verified. The arithmetic mean of the random variable is zero.

Tests of Normality							
	Kolm	ogorov-Sm	irnov ^a	Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.	
Unstandardized	,179	10	,200*	,934	10	,485	
Residual							

Table 5: Test of normality in residuals

Given that all the assumptions of the regression model are fulfilled the conclusion is that the log-log regression is statistically significant and that non-financial performance elements: learning, performance measurement, leadership approach and the manner in which the decisions on the improvement priorities are made, have statistically significant effect on the dependent variable *overall assessment of KPIs* (alternative hypothesis H₄₁ is confirmed).

Analysis of the data obtained from survey respondents also implied the analysis of data relating to the self-assessment of particular quality management segments.

Results of the regression analyses confirm the results obtained in terms of measuring the impact of the key elements of success, given that in both cases the same 4 companies received the highest ratings; these are: Komercijalna banka a.d. Beograd, Čačanska banka a.d. Čačak, NIS a.d. Novi Sad and Metalac a.d. Gornji Milanovac. Therefore, it is not necessary to present the results of the regression analysis. However, please note that the data are best adapted to logarithmic regression, as well as that the same variables were used for the analysis of the KPIs and regression analysis.

3.3.2 Impact of independent non-financial performances on number of share transaction

This analysis has aims to show a correlation between the dependent financial variable number of share transaction and the independent non-financial variables that remained in the model: management, measurement, improvement and learning. For this analysis, we used the classical two-dimensional regression model to investigate the relationship between financial and non-financial performance, which should be incorporated into the criteria for the listing of shares on the BSE. By carrying out a regression analysis between the dependent variable and the following independent variables, were obtained next results:

1. Performance measurement - Snedekor's F statistic is F=1.672 and significance level p is p=0.232, which indicates that the regression line is low, also the adjusted coefficient of determination (Adjusted R Square), which is 0.173, shows that only 17.3% of the variation of the dependent variable are explained by the variations of independently variable;

- 2. Priorities for improving- Snedekor's F statistic is F = 0.160, p = 0.700, adjusted coefficient of determination is 2%;
- 3. Learning Snedekor's F statistic is $F=0.691,\,p=0.430$, adjusted coefficient of determination is 7.9%;
- 4. Management Snedekor's F statistic is F=4.906, p = 0.058, which is the highest comparing other independent variables, adjusted coefficient of determination is 38 %

We can conclude that, in addition to *management*, none of these non-financial performance has impact on number of share transaction, which will be proven by following correlation analysis. (null hypothesis H_{50} is confirmed)

4. Comparative analysis of the results obtained from regression analysis

The null hypothesis is that the general criteria for the listing of stocks on the BSE provide an adequate assessment of both financial and non-financial performance elements of the issuer. Based on the conducted regression analysis, it was determined that the financial performance element which has the greatest effect is ROE.

Top rated companies in terms of this indicator are Nis a.d. Novi Sad (Prime Listing), Metalac a.d. Gornji Milanovac (Standard Listing), AIK banka a.d. Beograd (Open Market) and Čačanska banka a.d. Čačak (Open Market).

In consistence with the non-financial performance elements and based on the regression analysis performed, even 4 performance elements have the greatest effect on the dependent variable; these are: learning, performance measurement, management and employment priorities.

Top rated companies according to this indicator are: Čačanska banka a.d. Čačak, Komercijalna banka a.d. Beograd, Metalac a.d. Gornji Milanovac and NIS a.d. Novi Sad. The analysis identified drastic discrepancies in the assessment of financial and non-financial performance elements in AIK banka a.d. Niš, which has remarkable results concerning the analysis of the financial report, however its quality management sector is poorly developed.

Our analysis is more focused on the position of listed companies. Namely, Nis a.d., as one of the companies with the greatest liquidity whose shares are most traded in the market and which has the Prime Listing. Although this company is characterized by outstanding financial performance elements, its non-financial performance elements are not developed. Although positioned on the Open Market, Čačanska banka a.d. holds the first place according to development of its non-financial performance elements, as well as the first four places referring to the rating of its financial performance elements.

Therefore, one can say with full confidence that there is no agreement of financial and non-financial performance elements in terms of their importance for ranking of companies on the BSE (general hypotheses H_{11} and H_{21} are confirmed). This is also supported by the testing of the hypotheses concerning the correlation analysis of the relationship between the volume of shares sold in the stock market and financial indicators and the relationship between the volume of shares sold and the non-financial indicators. Rank correlation coefficients show that there is not even moderate correlation

106 ЕКОНОМИКА Э€

between the volume of shares sold and non-financial indicators (the null hypothesis H_{60} is thereby confirmed). These coefficients together with their statistical significance are shown in the table below. The only exception is the following: there is strong correlation between the non-financial performance element *management* and the dependent variable *volume of shares* sold which is confirmed by the Spearman's rank correlation coefficient of Rs = 0.578 and p = 0.08. (null hypothesis H_{60} is confirmed)

Correlations							
			Number of share transaction				
	Management	Correlation Coefficient Sig. (2-tailed) N	,578 ,080 10				
Spearman's	Performance measurement	Correlation Coefficient Sig. (2-tailed) N	-,268 ,454 10				
rho	Priorities for improving	Correlation Coefficient Sig. (2-tailed) N	,036 ,922 10				
	Learning	Correlation Coefficient Sig. (2-tailed) N	,052 ,886 10				

Table 6: Spearman's rank correlation coefficient

As far as the financial performance elements are concerned, only the value of the Spearman's rank correlation coefficient referring to the dependent variable *number of share transaction* and the financial variable *ROE* was found statistically significant. Therefore, we obtained Spearman's rank correlation coefficient of Rs = 0.533, p \approx 0.05. This coefficient indicates the existence of strong correlation, which was also confirmed by the significance level of p = $\alpha \approx 0.05$. (alternative hypothesis H_{31} is confirmed)

Conclusion

Based on the research conducted, analysis of the questionnaires and the results of the statistical/econometric analysis, the following can be concluded and/or suggested:

- Comparative analysis of the situation on the BSE with that on the WSE and
 the ZSE, respectively, brings us to the conclusion that the absence of the IPOs
 in the privatization of public enterprises in the Republic of Serbia led to a
 major collapse of the domestic capital market compared to markets of other
 transitional countries in the region;
- One of the biggest constraints concerning this research is the small number
 of surveyed companies, as well as the limitation to a single capital market.
 Since the comparative analysis referenced the BSE against the WSE and the
 ZSE, future research will include companies from these two foreign markets,
 i.e. the companies from the WSE and the ZSE will be selected and surveyed;
- Analysis of financial performance elements should be expanded to include a
 few more ratios which would make the analysis more detailed, such as ROA
 (return on assets) and ROS (return on sales);

- The volume of literature on this topic is very modest and there is obvious lack of studies on the analysis of the financial indicators of public companies, given the very small number of authors in the country and abroad interested in this topic;
- The analysis included only two companies headquartered abroad, so it was not possible to conduct such comparative analysis where the companies would have been divided into two groups: the domestic and the foreign ones;

Based on the performed analysis, the following recommendations can be offered to the companies, as well as the stock exchange executives:

- The results of the analysis indicate that non-financial performance elements of the issuers are not included in listing conditions. However, the inclusion of such indicators would raise the awareness of the management of listed companies on the significance of improvement of non-financial performance elements. In addition, those companies investing in non-financial performance elements would receive additional encouragement to apply for the Prime/Standard listing.
- Recommendations to management of AIK banka a.d. Niš, is to invest effort and resources in developing quality management system, as it will also be the investment in improving numerous financial performance elements.
- Recommendations to management of Čačanska banka a.d. Čačak is to apply for the
 Standard Listing as soon as possible, given that the results of the analysis conducted
 in this paper confirm the excellent ratings of their both financial and non-financial
 performance elements. It should be noted that the perspective investors would
 conduct almost identical analysis and arrive at the same conclusion. Thus, they
 would most definitely invest their money in the purchase of the bank' shares.

References

- Benic, V., and I. Franic. 2008. Comparative analysis of Croatia and the countries of the region capital markets liquidity. *Financial Theory and Practice* 32: 481-502.
- Brouch, G. 2011. Total Quality Management as a theory of change. *International Journal Total Quality Management & Excellence* 39: 15-20.
- Beaver, W., and S. Ryan. 2000. Biases and lags in book value and their effects on the ability of the book-to-market ratio to predict book return on equity. *Journal of Accounting Research* 38: 127-148.
- Certo, S. T. 2003. Influencing Initial Public Offering Investors with prestige: signaling with board structures, *Academy of Menagement Review* 28: 432-446
- Cirović, M. 2007. Financial Markets instruments, institutions and technology. Scientific Society of Serbia: Belgrade.
- Chordia, T., A. Sarkar, and A. Subrahmanyam. 2003. An Empirical Analyses of Stock and Bond Market Liquidity. *Federal Reserve Bank of New York Staff Reports* 164: 3-28.

- Cohen, J.W. 1988. Statistical power analysis for the behavioral sciences (2nd edn), Lawrence Erlbaum Associates: USA.
- Danielson, M. and T. Dowdell. 2001. The Return-Stages Valuation Model and the Expectations within a Firm's P/B and P/E Ratios. *Financial Management* 30: 93-124.
- Dale, B. G., T. Wiele, and J. Iwaarden. 2013. *Menaging Quality*, Blackwell Publishing: Oxford.
- Degryse, H. 2009. Competition between financial markets in Europe: what can be expected from MiFID?. *Financial Market and Portfolio Management* 23: 93-103.
- Dugalic, V. M. Stimac. 2006. *Basics of stock market operations*, Stubovi kulture: Belgrade.
- Domanovic, V. 2013. The effectiveness of the performance measurement in terms of contemporary business environment. *Economic Horizons* 15: 33-46.
- Eric, D.D. 2003. Financial markets and instruments. Cigoja prints: Belgrade.
- Easton, D. P. 2004. PE Ratios, PEG Ratios, and Estimating the Implied Expected Rate of Return on Equity Capital. *Accounting Review* 79: 73-95.
- Haan, J., S. Oosterloo, and D. Schoenmaker. 2009. *The European Financial Markets*. Cambridge University Press: UK.
- Hall, B. H., A. Jaffe, and M. Trajtenberg. 2005. Market value and patent citations, available at: http://elsa.berkeley.edu/~bhhall/papers/HallJaffeTrajtenberg_RJEjan04.pdfv/ (accessed 10 September 2013).
- Helfet, A. E. 2001. Financial Analysis Tools and Techniques. McGraw-Hill: USA.
- Hoyle, D. 2009. ISO 9000 Quality Systems Handbook. Butterworth-Heinemann: UK.
- Isaksson, R. 2006. Total Quality Management for Sustainable Development process based system models. *Business Process Management Journal* 12: 632-645.
- Jaksic, M. 2011. Financial market instruments and institutions. Faculty of Economics, University of Kragujevac: Serbia.
- Jovetic, S. 2012. Methodology of supervising and improving Maintenance process performanceS. *Economic Themes*, University of Nis, Faculty of Economics 3: 375-396.
- Jovetic, S. 2011. Quality Management systems in the Higher Education. *International Conference: Technology, Culture and Development, Tivat Montenegro*: 102-113.
- Mumović, S. V. Pavlović. 2010. Significance development of financial markets for Serbian economy. *Industry* 38: 41-67.
- Malinic, D. 2009. Contemporary challenges of financial statements integrated research quality. *Ekonomika* 57: 138-155
- Mach, A. 1998. *Introduction of a joint stock company on the stock exchange*. LEGE ARTIS Dom Wydawniczy, Kraków: Poland.
- Oakland, J. S. 2006. Quality management in the 21st century- implementing successful change. *Int. Journal Productivity and Quality Management* 1: 69-87.

ЭСЕКОНОМИКА 109

- Pečaric, M., J. Arnerić, and M. Radić. 2012. Financial markets and institutions in the Republic of Croatia in the process of joining the European Union, Faculty of Economics Rijeka: Croatia.
- Proniewski, M., A. Niedźwiecki. 2009. *Exchange Securities in Warsaw-shot retrospective*, Drukarnia Biały Kruk, Białystok: Poland.
- Pallant, J. 2011. SPSS Survival Manual: A step by step guide to data analysis using SPSS, Open University Press, McGraw-Hill, Berkshire: UK.
- Ramanna, K., and L. R. Watts. 2012. Evidence on the Use of Unverifiable Estimates in Required Goodwill Impairment. *Review of Accounting Studies* 17:749–780.
- Sieradzki, R. 2013. Does it pay to invest in IPOs? Evidence from the Warsaw Stock Exchange, *National Bank of Poland:* Poland.
- Stijin, C., S. Djankov, and D. Klingebiel. 2001. *Financial Transition in Europe and Central Asia: Challenges of the New Decade*. The World bank: Washington.
- Suganthi, L., and A. Samuel. 2004. *Total Quality Menagement*, Prentice Hall of India: New Delhi.

Endnotes

- 1. For more information on the listing conditions please see: http://www.belex.rs/trzista i hartije/uslovi.
- 2. Ey= yxi/y^* =b1*xi/bo+b1xi, za i=1,2,3....n
- 3. WIG30 is a capitalization-weighted stock market *index* of the thirty largest companies on the WSE
- 4. SETX is a capitalization-weighted index consisting of blue chip stocks traded on stock exchanges in the region of South East Europe. Currently the SETX includes stocks listed in Bucharest, Ljubljana, Sofia, Belgrade and Zagreb
- For more information on the contents of the standard please visit: http://www.ekfak.kg.ac.rs/sites/default/files/nastava/Novi%20Studijski%20Programi/III%20godina/MenadzmentKvalitetom/ZavrsniRadovi/SRPS%20ISO%209004.pdf

110 EKOHOMИKA **ЭС**

Milan Stamatović¹ S Snežana Maksimović² University of Belgrade, Faculty of Business and Industrial Manegement Aleksandra Tornjanski³ High Torism School of Professional Studies, Belgrade

SCIENTIFIC REVIEW ARTICLE doi:10.5937/ekonomika1603111S Received: July 12, 2016 Accepted: Septembar 9, 2016

THE COMPARISON BETWEEN PUBLIC AND PRIVATE SECTOR EFFICIENCY – ARE THE BUREAUCRATIC PROCEDURES THE SOURCE OF INEFFICIENCY?

Abstract

The article suggests the importance of the research of the public policies dimensions which indicate in which ways, ratios and forms the public spending funds supply and usage are defined and what the position of certain subjects included in the process is, using the experience of developed countries. It underlines the complexity of public decision making and the importance of bureaucrats', that is, state officials' role comprehension in the understanding of public management logic. Also, salary costs make almost one quarter of the total state spending, and they are an inflexible and often inefficient way of meeting the needs of the economy and citizens in public services domain. The paper will analyze the state of the public sector in the Republic of Serbia, with the accent on the creation of a new strategic orientation of the public administration, where the labor costs would decline by implementing the modernization of labor, while the labor flexibility and the state effect would increase. The final segment also suggests the need of social attitudes change, that is, public debates sometimes suggest that people have unrealistic expectations and exaggerated requests towards the political system. Thus we can conclude that in the following years it will be necessary to stipulate reasonable rules and legal budgetary procedures constraints. This suggests possible new research framework in the specific context of public management in Serbia.

Key words: public goods, competitiveness, efficiency, rationalization, bureaucratic procedure

JEL classification: D73, M12, O11

¹ stamatovicm@sbb.rs

² galena.mcl@gmail.com, snezana.maksimovic@skc.rs

³ aleksandra.tornjanski@gmail.com

POREĐENJE EFIKASNOSTI JAVNOG I PRIVATNOG SEKTORA- DA LI SU BIROKRATSKE PROCEDURE IZVOR NEEFIKASNOSTI ?

Apstrakt

U članku se upućuje na važnost istraživanja dimenzija javnih politika koje ukazuju na koji način, u kakvim odnosima i u kojim oblicima se odlučuje o obezbeđivanju i korišćenju redstava za javnu potrošnju i kakav je položaj pojedinih subjekata u tome kroz iskustva azvijenih država. Ukazuje se na složenost javnog odlučivanja i da je za razumevanje logike javnog upravljanja bitno sagledavanje uloge birokrata- državnih službenika. Takođe, troškovi zarada čine skoro četvrtinu ukupnog trošenja države, a predstavljaju nefleksibilan, a često i neefikasan način da se obezbede potrebe privrede i građana u sferi javnih usluga. U radu će biti analizirano stanje u javnom sektoru Republike Srbije sa posebnim akcentom na stvaranje nove strateške orijentacije javne uprave gde bi se modernizacijom rada troškovi rada smanjili, a fleksibilnost rada i učinak države povećali. U završnom delu ukazuje se i na promene društvenih stavova, odnosno javne rasprave ponekad ukazuju na to da ljudi imaju preterane zahteve prema političkom sistemu i nerealna očekivanja, tako da možemo zaključiti da je u godinama koje slede zapravo potrebno formulisanje razumnih pravila i ograničenja za budžetske procedure na zakonskom nivou, što upućuje na moguće okvirenovih istraživanja u specifičnom kontekstu javnog upravljanja u Srbiji.

Ključne reči: javna dobra, konkurentnost, efikasnost, racionalizacija, birokratske procedure

Introduction

The public sector exists in every state and its purpose is to enable the public apparatus functioning and to render public services and goods. The public sector activities comprise the legal system establishment and maintenance, public goods production, public education, health care, public enterprises. The public sector efficient functioning is an important factor for the maintenance of macroeconomic stability, economic growth, standard of living and social welfare. The lack of public sector efficient functioning is a source of severe disruption of the total economic functioning. The public sector in Serbia is generally seen as oversized considering the needs and abilities of the economy and citizens which finance it. It does not match the level of Gross Domestic Product (GDP), and its every change, either positive or negative, has a direct impact on the state of economy (Anđelić, G, Đaković V. 2013, pp.63-76). Rationalization, salary cuts, public sector reorganization and public enterprises restructuring are important postulates for the national economy maintenance. Nevertheless, the state must not neglect social and health care, as well as the retirement system. Therefore it is necessary to cease the social policy led by hiring people in the public sector. Instead of that, the public sector should be transformed so that the number of the employed becomes optimal. What must be

112 ЕКОНОМИКА Э€

understood is that the employees in the public sector are there not to earn their salaries but to render services the citizens need – administrative, educational and medical - and that they are paid for it via taxes. Therefore it is necessary that the level of these services be as high as possible and at a low price.

It is very important to raise the issue of the public sector efficiency – the more efficient public sector is, it will spend less of the public funds, and its results will be better. Countries with inefficient public sector (especially the Republic of Serbia, as the efficiency research in post-transition countries shows that Serbian public sector is the least effective) can perform reforms using a set of different measures (introducing the competition in rendering services, giving concession for building the infrastructure or partial privatization and decreasing the public jurisdictions) which would decrease the necessary allocations for the public sector, and increase the quality of services that public institutions render to the citizens.

The complexity of public management

Everybody who follows the media comes across shocking stories about state inefficiency where a wrong policy of procurement is usually underlined. Such information comes from private sector. Apart from the data suggesting the state inefficiency, there are some specific assertions in these allegations. The comparison between the costs in public and private companies engaged in the similar activities indicates lower costs in private sector, regardless of the activity in question – housing, preservation of the environment, bus transportation or the processing of payroll (Arsić, M, 2010, pp.142-5). Despite this, it is difficult to obtain the data on the state inefficiency. In most cases, public and private sector do not produce the same goods, which makes it difficult to compare directly. When they do – as in the case of education – it is difficult to measure inputs – in education it is the quality of the students (but tests adequately show only some of the dimensions of what the students achieved, while the creativity and moral values encouraged by schools are usually left out).

French public enterprises have been seen as paragons of efficiency for a long time. For example, French Electric Company built nuclear plants in the whole country using the same project and thus considerably cut the costs in comparison with American nuclear power plants which were built using different projects (R. Musgrave, 2010, pp.28-29). One of the most illustrative comparative studies on productivity is the study on comparison between two railway companies in Canada, one being privately-owned and the other state-owned. This research showed that there was no significant difference in efficiency between them. It is clear that the competition gives them a strong stimulus to be efficient.

The public sector in Serbia has been under constant fire for fifteen years. The main argument of this attack refers to its 'inefficiency'. That is, considering the fact that the services provided by the public sector are not on the market, operating losses appear, which is then financed by budgetary subsides, meaning, with the money mainly obtained from taxes or borrowing (Dimitrijević, Cvetković, 2010, pp.123-9). Critics believe that if these services were rendered on the market, the budgetary losses and tax burden would decline, while the quality of services would increase. Is it really so?

The logic of the public sector functioning and organizing in the Republic of Serbia has not changed significantly over time, although the society has gone through major changes. In other words, the public sector has not adapted to the changes of institutional design, social awareness and market flaws. If we analyze the period from 1920s, we can come to a conclusion that the state of affairs in the public sector, for those employed there or cooperating with it directly or indirectly, is far better in comparison with the privately-owned sector of the economy. A large number of public enterprises operated or still operates with losses, but their employees have significantly higher position than the average of the economy taken as a whole. Practice shows that public enterprises mainly operate with losses, and the same public enterprises pay high wages to their employees (Veselinović, 2014, pp. 143.).

. There are several reasons to expect that public enterprises will be systematically less efficient than the private ones. This fact is associated with incentives and limitations, both on the individual and organizational level.

Organizational subsides

Considering the fact that profit is not the impeller, public enterprises have little impulse to increase the productivity. In fact, these enterprises are usually propelled by the reasons harmful for the productivity – for example, providing positions for workers, especially in domains with the problem of unemployment. In some countries, public enterprises do not even have to care about losses, as they cannot go bankrupt, and all losses are compensated from the state income. In other words, they follow *soft budget constraint* (J. Stiglitz, 2009, pp.78). They also often do business surrounded by limited competition. The conclusion after a series of analyses conducted by the Ministry of Public Administration and Local Self-Government in Serbia in 2014, and based on which a new strategic orientation of the public administration in Serbia is to be created, is that there is a significant potential to decrease the labor costs and increase the labor flexibility and state effect by implementing better discipline and work organization, as well as by modernization of the public administration operation (MDULS, May 2014, pp. 6)

HR limitations

The concern that state officials can abuse their position and power at the expense of tax payers which can be forced to pay the services more than it is necessary led to the implementation of numerous constraints.

Private companies can hire whoever they want and give them whatever salary they wish, and if the company pays someone more than they deserve, it is at the owner's expense. However, if a state agency pays someone more than they deserve, it is at the expense of tax payers. Dishonest work of state officials is a particular issue (fairness is an important factor for public confidence). Therefore rules for the state services should be strict, which would ensure that the state hires and promotes the most qualified individuals, as well as pays them properly. These rules are very important, but also very rigid. A state agency has a problem laying off an incompetent employee, and this decreases incentives.

114 EKOHOMИКА **ЭС**

The state cannot compete with private companies regarding employment of the most qualified people, as it requires big salaries, much bigger than people with the same qualifications can be offered in the state sector.

In the upcoming period, three types of analyses are necessary for defining public administration optimization possibilities and improving its efficiency, with minimization of side effects. Firstly, detailed functional analyses will, on one hand, determine to which extent it is possible to eliminate the duplication of functions in institutions (including the fusion of agencies and bodies with ministries), and on the other hand, establish which new jobs are necessary and to what extent.

Then, there is a need for the analyses of the organization and territorial layout of work and positions in the public administration, especially health service, education, justice and security, as well as the coordination of work between central and local level. Typically, the surplus of workers in regards to the actual need is larger in the places where economic and demographic trends are in decline, which means that this analysis requires a designed policy of regional development, too (EU FWC project, 2015).

The third type of analysis implies the decision on the extent and methods of the introduction of private and nongovernmental sector in rendering public services, as well as on policies and measures which can contribute to direct transfer from the public to private sector (MDULS, May 2014, pp.8-14).

Procurement constraints

In order to avoid misuse in state procurement of goods and services on which billions of dollars are spent every year, the USA established procedures which prevent the damage of the state, although these procedures themselves sometimes lead to costs increase. In the case of one jet engine, these procedures increase the costs by as much as a third, according to the reports. In many regions, there is an insistence on auction. However, in order to do that, the state needs to define in detail what is being bought. For a T-shirt it can take thirty pages of a densely typed text, with all the details on the quality of yarn, model, etc. (H. Rosen, T. Gayer, 2009, pp.124-9)

However, as these specifications usually differ in many things from those that factories use for the private market, there is a need for a distinct production. A relatively small number of companies will consider coordination with all state regulations to be worth the effort, so the competition will be limited, and the bid prices will reflect high expenses of coordination with state specifications. Due to this, in the end the state can pay much more than it would for a similar product from the regular production.

The overall reform of the public procurement systems in Serbia started with adoption of the new Law on Public Procurement in December 2012. When the law came into effect, legal standards in this domain were largely coordinated with the EU legal acquis. The key principles of the EU public procurement functioning are the transparency, equal opportunity for all bidders, free competition and the prohibition of discrimination. Also, public procurement is a separate chapter in the EU accession negotiation process. It takes complete practical application of the new rules for the ambitious goals stipulated in the law to be achieved. According to the latest report of the Public Procurement Administration, the transparency of the public procurement procedures has significantly

improved thanks to the new Public Procurement Portal. The success of the Portal is reflected in the increased number of the registered users; considerably increased number of tenders published on the daily basis, as well as in the more frequent daily visits to the Portal.

Unitary public procurements of basic office supplies for central state bodies under the Administration for Joint Services of Republic Bodies have been introduced, as well as unitary public procurements of medications for public hospitals and community health centers financed by the Republic Fund for Health Insurance.

The control of the law implementation has also been improved. New ways have been introduced to enhance the integrity and transparency of public tenders through yearly procurement plans and purchasers' internal acts which precisely regulate the whole procedure and the parties in the liability chain. As for the legal remedy, the Republic Board for Rights Protection has considerably strengthened its institutional capacities. With the application of the new jurisdictions it notably strengthened its credibility, too. The application of the new rules led to the first humble, still positive results which will have to continue in the following years. Thus the share of public procurement overt procedures, which are also the most transparent ones, has gone from 54% in the first half of the last year to 79% in the second half of the same year. The share of procedures without publishing the invitation, which are the most prone to corruption, fell from 24% in the first half of the last year to 11% in the second half of the same year.

The major challenge is ensuring constant and consistent application of all measures designed by the new law, with strong governmental and institutional support, especially the support of the State Audit Institution (DRI), the Anti-Corruption Agency and Council, as well as the Protection of Competition Board.

Budgetary constraints

Another thing which distinguishes state enterprises from the private ones is budgeting, especially when it comes to long-term investments. Airline companies took many years and millions of dollars to develop their systems for tickets reservation, but they could easily allocate funds for what they knew represented important investment in basic funds. Air traffic control system preventing planes collision is mainly under the jurisdiction of state bodies. Keeping pace in constant modernization of the technical equipment due to enormous increase of air traffic requires large investment. However, state budgets are approved once a year and considering budgetary constraints there is never enough money allocated for the quick modernization financing. State bodies do not see this issue as an enterprise estimating income on investment. With the implementation of the Law on Budgetary System, in 2002, the 'infrastructure' was set in the process of public funding reform and in accordance with the accepted international budgeting methodologies and practices. So far, the application has been characterized by establishing a unique budgetary and accounting system and consolidation of data associated with public spending, the implementation of treasury as a new institution in public funding system, as well as creating the environment for effectuation of budgetary discipline. However, the model of budgeting as a classic financial and accounting form of business events record failed to give the right insight in the financial effects of the chosen

ЕКОНОМИКА ЭС

priorities of state management, or adequate monitoring of public authorities realized strategic activities, programs and projects. Thus the entire system became even more bureaucratic, so the legislator tried to introduce the concept of program budget from 2006 which was successful in five pilot-ministries in the Republic of Serbia. The enactment of the new Budgetary System Law in 2009 was supposed to be a significant step towards the strengthening of the role of budget as an instrument of strategic management in the public sector. However, the Budgetary System Law, based on the article 112 of the regulation referring to the program part of the budget, stipulates that the program model of budgeting shall be applied in total starting with Budgetary System Law enactment and Local Authority Budget Decision for 2015. Serbia should give up the incremental linear budgeting approach and start applying a model that will connect the planning process with the process of goals and activities determination, that is, which will aim at achieving optimal funds allocation in the process of choosing a desirable managing goal. Unlike classic budgeting approach, where place, type and domain of budgetary funds spending are clearly defined, in program budget schema there is another category - 'the holder of the costs'. These are budgetary programs and projects to which the activities and costs are allocated for the purpose of achieving a particular strategic goal in practice (The Ministry of Finance RS, Bulletin, 2013b, pp.6-37).

Bureaucratic procedures

There is a series of characteristics usually associated with bureaucratic behavior. Although they may not get bigger salaries for the increase of efficiency, bureaucrats often seem to enjoy the power and prestige which come from the fact that they work for the state. The problem that Niskenen (J. Stiglitz, 2009, pp.84-90) pointed out – that state bureaucrats can act in their own interest and not in the interest of the citizens they were appointed to serve to – is one of the examples of general issues known as *the problem of principal and agents relation*. The problem between principal and agent is an old question of how one man can get another to do what the first one wants. Here we have an issue of how citizens (principals) can get the office-holders, state officials (agents) to act in their interest. The corresponding problem in the private sector is how shareholders (principals) can get their officials, managers and company workers (agents) to act in their interest. The problem between principal and agent is present in every organization, either state-owned or private. Managers always have problems getting their employees to act in accordance with their wishes, and if the manager is not the owner too, the owners have problems assuring that managers act in their best interest.

The employees control problem is especially drastic in large organizations, and the manager control problem in large corporations where there is no majority owner is perhaps equally serious as in state enterprises. When it was state-owned, the company 'British Petroleum' functioned slightly different than any other large oil company with diffuse ownership, like 'Texaco' (although in a certain way both organizations could act differently than a large oil company controlled by a family such as Getty). What is the difference between the situation where a company is owned by private shareholders and when it is owned by a single shareholder, the state? There is an opinion that public enterprises managers can act like private enterprises managers to a large extent.

In both cases they have carte blanche to a large degree, which often enables them to follow personal at the expense of public interests (in the case of public enterprises), or shareholders' interest (in the case of private companies). These attitudes have recently been confirmed by frequent redemptions of a large number of shares of one's own company at prices much higher than the market price, from the shareholder who planned to take them over (so called 'green mail'). Such payment from the corporations' treasury and the commission fees which companies' management tried to incorporate in the statutes in order to impede taking over of corporations, preserved the prerogatives of the management but at the expense of shareholders (Nielsen, 1996, pp. 97).

In large organizations the problem between principal and agents is never completely solved. The most efficient ways of stimulation are rewards for 'good' behavior' (often financial) and punishments for 'bad' behavior (lay-off). Despite the fact that both public and private sector face problems with determining the incentives that would completely solve the problems with agents, these problems appear to be much bigger in the public sector, partly because state agencies are limited regarding the possibilities of rewarding their employees. Bureaucrats' wish to increase their budget perhaps offers an explanation for many aspects of bureaucratic behavior. Another important aspect of the incentives that bureaucrats receive can explain other forms of their behavior in the best way. Despite the fact that bureaucrats' salaries need not to be directly connected with their effectiveness, their long-term promotion at least partly depends on their success at work.

A bureaucrat can avoid the responsibilities for mistakes by following certain procedures which ensure that others check all his/her actions. Although this process of joint decision making also decreases an individual's possibilities to take credit for any success, bureaucrats seem to accept this kind of trade off. It is usually said that they exhibit aversion to risk. That is what partly forms the character of the bureaucracy – everything has to go through certain channels (so called 'bureaucratic routine').

There are additional two factors that contribute to the domination of bureaucracy. Firstly, most of the expenses caused by risk avoidance are not borne by the bureaucrats. Instead, these expenses are borne by the entire society, through taxes needed for paying extra staff. Those who deal with bureaucracy are forced to pay extra expenses caused by the delay of 'paperwork', etc. In fact, some say that bureaucrats enjoy the bureaucratic process (Nielsen, 1996, pp. 97)

The domination of strict rules which stipulate that every proposition must be approved by several individuals has its good side too. It is not only the consequence of bureaucrats' urge to follow their own interests but also something that naturally comes from the connection based on the trust between bureaucrats and the funds they allocate. This means bureaucrats do not spend their own money but public funds. It is a common opinion that an individual should be more careful when spending other people's money than his own. Therefore greater precaution means observing certain rules which assures that funds are not spent according to any individual's interest. As the approval needs to be given by several individuals, usually no one of them has the authority to conclude an agreement at a price bigger than the one on the market and take bribes for it.

As an example of bureaucratic procedures the Cost-Benefit Analysis and environmental reports can be examined. These procedures have a clear purpose. On the other hand, as the data for a clear estimation are rarely available, such examinations often turn into formal reports with predictable results. Such reports are sometimes used by the

ЕКОНОМИКА ЭС

opponents of a certain project as a foundation for the attempt of its delay. Thus the costs increase to the level where the project is no longer economically feasible. These delays are social loss.

An often argument against the public sector has to do with its cumbersomeness in regards to the number of employees there. Comparing the number of the employed in public sector and the total number of employed we can get the figure of 45%. However, such comparison covers up the fact that the public sector is not too large as it is, but the total number of the employed is too small (over a half of people capable of working are unemployed). According to the Serbian data 1.95 % of people out of the entire population work in the education sector, while the European average is 3.46%. The percentage of people in health and social care is 2.24, whereas the European average is 4.74% (https://libek.2014).

In the public sector analysis the key question is which size and structure of Serbian public administration expenses make this sector efficient in comparison with EU member states and neighboring countries as well. In order to take observation on fiscal behavior and economic structure of a country as norms, we have to define separately which public policies are being conducted, that is, which are the desired outcomes of defined public policies. The fact is there is no unique and optimal size of public sector as every country in a certain period should estimate the optimal size of public sector. For the approximation of the public sector size in different countries the data which are mainly used are those on the number of people employed in the domain of public administration, defense, mandatory social security, health and social care (The Ministry of Finance of the Republic of Serbia, 2013, pp. 24). According to the given indicators, the public sector in the Republic of Serbia does not depart from that in the EU states, which of course does not mean that its size is optimal, or that the number of employees in certain segments of public sector is too large, while in some sectors the number of the employees is not adequate. When we talk about large, sluggish and 'restraining Serbia' we also talk about large public sector wages costs. Expenditures of the wages, that is, salaries of the employed in public sector in the Republic of Serbia make almost a quarter of the total public expenditures, while they make around 12% in the context of GDP (Eurostat, RBS, 2014). Nevertheless, it should be considered that a large step towards the reduction of wages costs was taken last year in October (public sector wages were cut by 10%). However, it is important to underline that these reductions in public administration should not be implemented only for the sake of saving and rationalization, but predominantly because of modernization. Because wages for full-time and part-time jobs are used as a measure of number of people on fixed positions, that is, of people who do the same job every day. The description and practice of such jobs are very difficult to change. A modern country today needs to be able to change quickly, as in today's dynamic, global surroundings jobs quickly become less important, redundant or outdated. A modern country needs to invest frequently, not only in classic infrastructure, but in informational and communication technologies, new ways of work, new skills and solutions. These are exactly the costs of public administration that represent wages for some citizens, but also provide better services to the society (MDULS, 2015, pp.13).

Still, the field of political battle is not very simple, but the public sector defense is important, among other things, because less availability of public services, that is, a smaller number of the people employed and smaller salaries, means decline of economic activity, as then the spending declines too, and thus fewer services of the public sector for all others (Mihajilović, Mihić, Rađenović, 2013, pp. 168-176).

A radically different approach would mean defense of the workers and their social functions in public sector, a greater participation for 'users' themselves, citizens in management and decision making in public sector. It is completely obvious that the structure of the employed in the public sector is top heavy, meaning that there is a great number of managing positions and a large gap between these positions and the workers' salaries, as well as additional income for the participations in different board and committees. The first step could be the increase of income tax rate, as it does not participate much in the budget as it is.

Conclusion

The results of many studies show that the public sector in Serbia is too large and expensive in comparison with the countries in the same region and that its results are very poor. At the same time, this means that Serbia renders very poor services to its citizens, and uses more resources than necessary for this. That is, the level of public services, according to 2014 data, could be rendered with much lower public spending of 33.7% of GDP if the efficiency of the system rose to the maximum, which makes almost one third of the current public expenditures estimated at 48.3% in 2014 (https://libek,2014). The most frequent argument against the public sector refers to its 'inefficiency' and 'wastefulness'. As the services rendered by the public sector are not at the market, there is no competition, so bureaucrats do not take care of expenditures, that is, they make losses which are then compensated from the budget (with the tax money or by borrowing). However, as all public sector services cannot be the part of the private sector, the question that arises is whether the public sector should function on the efficiency principles anyway. The market efficiency criterion measures only the financial gain and losses, and disregards social effects, social gain, etc. If we look at health services we can see that operating below the level of available health care and budgetary financing actually means that health services are also available to the citizens with earnings below the average. This would not be the case if the prices of private clinics were generally used. The same goes for communal services. It should be emphasized that private businesses and entrepreneurs are not the only ones who fill in the budget. The income tax also refers to state enterprises operating with profit. Then, public sector employees also have salary deductions and they spend their earnings on goods for which they pay VAT and excise duties. All this shows that we should think carefully when the answer to liberal pressures should be salary reduction, because the reduced spending of the public sector employees due to salary reduction also causes the decline in their financial and social welfare, with the already poor social standard in Serbia.

If the efficiency of the public sector tax increases, high budgetary deficit can decline, without the public services quality decline, or even with its rise. It is also believed that the public sector efficiency increase would make room for the decrease of high tax rates which impede the private sector development and new employment. All this suggests that there is a room for the private sector improvement. The state intervention should obstruct the market as little as possible without external, usually negative, effects, which are rarely included in the investment expenditures and often

120 ЕКОНОМИКА ЭС

completely neglected. According to the transition indicators of the European Bank for Reconstruction and Development and the international competition indicators of the World Economic Forum, Serbia falls behind the successful transition countries. Serbia based its economic growth more on the domestic spending growth and import than on the reforms and competition. (Maksimović, 2012, pp.102.).

The public sector changes have their institutional, reform and social aspect. This paper shows the way we should think when it comes to the public sector operation, and that reform course means the improvement of public enterprises corporative management and the strengthening of the professionalism of public enterprises executives.

Budgetary programs should become key information carriers and the managing instrument in the exercise of public authority system. These should help the integration of different elements which should form a unique managing system that will provide:

- clear definition and exhibition of the public authority goals
- identification of the alternative ways of achieving goals in practice by different activities of budget users
- determination of the costs and benefits for every alternative solution separately;
- selection of alternatives according to the maximum net worth and net social benefit of the budgetary program

The introduction of program budget is a demanding task for the public sector organizational systems in the Republic of Serbia. Besides, the advantages of this budgeting model are not immediately visible in practice. For this model to be adequately implemented it takes a significant reform in the operation of the managing structure units of the public authorities and permanent work on the state officials and executives training. What is also necessary is the improvement of strategic and operative methodology, analytical capacities development and precise definition of jurisdiction and responsibilities for the budgetary program implementation. In fact, the process of budget planning and making should be coordinated with the public sector management methodology, and this takes many years of careful, systematic and professional work.

Of course, numerous open questions regarding the ways of operating improvement as well as the model and form of the public sector financing, still remain connected to this topic trying to find the best way to obtain certain managing goals and the results of public operation, but also the awareness of the price and the final effects of certain projects in practice.

References

- Anđelić, G., Đaković V.(2013) Reforma javnog sektora Republike Srbije- pravci, trendovi i izazovi, str.63-76.
- Arsić, M. I drugi (2010) Reforma javnog sektora, Ekonomski fakultet, Beograd, str. 142-5.
- Clark, R. L., Sandler Morrill, M& Vanderweide, D.(2014) Defined benefit pension plan distribution decisions by public sector employees, Journal of Public Economics, 116 (1) 7-'88

- Dimitrijević, M., Cvetković, Z. (2010) Reforma javnog sektora u Republici Srbiji po modelu javno-privatnog partnerstva. Anali međunarodne konferencije maldih lidera .123-9.
- Đekić Ivan (2015) Unapređenje ljudskog kapitala u Srbiji, Ekonomika, NIš, str.133-148
- Ivanišević Milorad, POSLOVNE FINANSIJE, (2008)Ekonomski fakultet, Beograd, str. 234.
- .https://libek.org.rs/sr/istrazivanja/2014/10/09/racionalizacija-broja-zaposlenih-javnom-sektoru
- Maksimović, Lj. (2012) Sistemska oraničenja konkurentnosti privrede Srbije. Ekonomski horizonti, 14(2),99-109
- Mihajilović, M., Mihić, S., Rađenović, D. (2013) Restrukturiranje javnih preduzeća u Srbiji- usmeravanje ka tržišnim principima poslovanja, Poslovna ekonomija, 7(1), 157-176.
- Musgrave R., Teorija javnih finansija, (2010) Naučna knjiga, Beograd, 28-29.
- Ministarstvo državne uprave i lokalne samouprave (2015) Moderna državaracionlan država:koliko, kao i zašto?,Beograd, 6-27.
- Ministarstvo finansija Republike Srbije (2011)Analiza poslovanja u javnim preduzećima u 2010 godini, Beograd
- Ministarstvo finansija Republike Srbije (2013a). Informacija o paketu mera za stabilizaciju javnih finansija i oporavak privrede, Beograd
- Ministarstvo finansija Republike Srbije (2013b)Bilten javnih finansija, Beograd, 17 decembar.str. 6-37
- Nielsen, R.P. "Piggybacking Strategies for Nonprofits: A shared Costs Approach, "Strategic Management Journal, 97, (1996).
- Raičević Božidar, (2008) JAVNE FINANSIJE, Beograd, Srbija, Ekonomski fakultet Univerziteta u Beogradu
- Republički zavod za statistiku (2013). Anketa o radnoj snazi. http://webrzs.stat.gov. rs/WebSite/
- Rosen, S. HarveyTed Gayer, (2009)JAVNE FINANSIJE, Univerzitet Prinston, osmo izdanje, 124-9.
- Stiglitz, E. Joseph, (2008)EKONOMIJA JAVNOG SEKTORA, drugo izdanje, Beograd, 78-93.
- Program povećanja energetske efikasnosti, JSP Šabac, maj 2014. god.
- Regionalna privredna komora Valjevo, Finansijski rezultati poslovanja, Mart, 2015. God
- Veselinović, P (2014), Reforma javnog sektora kao ključna determinanta uspešnosti tranzicije privrede Republike srbije, Ekonomski horizonti, 16(2), 141-159
- Vuković, V. (2014), Javni sektor u Srbiji: između mita i stvarnosti, bilten.org
- Zakon o javnim preduzećima, Službeni glasnik Republike Srbije, br.119/2012, br.116/2013, br.44/2014-dr.zakon.

122 EКОНОМИКА **ЭС**

Vol. 62, july-september 2016, № 3 P. 123-130

Živojin B. Prokopović¹ Tijana B. Prokopović² Maja Lj. Arsić-Trajković³ Business school of Nis, high school – Nis SCIENTIFIC REVIEW ARTICLE doi:10.5937/ekonomika1603123P Received: May 27, 2016 Accepted: July 1, 2016

TRACING OF BALANCING EXPRESSION OF RESULTS OF SUSTAINABLE DEVELOPMENT

Apstract

Category sustainable development and economically consolidated subjective factor of entities are the basis of well-structured productive forces, but also the main lever of its integral development. Therefore, in all conditions of working hard for the issues of sustainable development, it is given more attention.

Solving the problems of governance of sustainable development in the entities and making optimal decisions for optimal economy, and (as part of the integrated economy) assumes the use of appropriate information subsystems. These are: operational records, statistical records and accounting records.

Key words: Sustainable development entity, information systems, records, accounting, balance...

JEL classification: M4

ПРАЋЕЊЕ И БИЛАНСНО ИСКАЗИВАЊЕ РЕЗУЛТАТА ОДРЖИВОГ РАЗВОЈА

Апстракт

Категорија одрживи развој и економски консолидовани субјективни фактор ентитета темељ су добро структурисане производне снаге, али и основна полуга његовог интегралног развоја. Зато се у свим условима привређивања проблематици одрживог развоја и поклања све већа пажња.

Решавање проблематике управљања функцијом одрживог развоја у ентитетима и доношење оптималних одлука ради његове оптимални економије (као дела интегралне економије) претпоставља коришћење одговарајућих информационих подсистема. То су: оперативна евиденција, статистичка евиденција и рачуноводствена евиденција.

Къучне речи: Одрживи развој, ентитет, информациони системи, евиденција, рачуноводство, биланс...

¹ z.prokopovic@gmail.com

² ticapro89@gmail.com

³ maja1505arsic@gmail.com

Introduction

Total economy of entities, including the economics of sustainable development, is a privilege to owners of capital on which it is, of course, and the way of solving the problem of sustainable development. The determining factor on which depends the behavior of the capital owner in this area is the level of profitability of invested capital. Without sustainable development in the future economic entities and consolidated subjective factor there is no question of a well structured productive force as the main lever of his integral development. Hence in all economic conditions the issue of sustainable development more attention is given as well as to engagement of the necessary resources for its implementation.

However, it was a mistake to think that the solution of the problems of sustainable development has only social dimension. On the contrary, everything that enters into the complex issues of sustainable development (some investment in it, caused deviations in this area, either temporarily or permanently eliminate the investors from this process) directly or indirectly affects the economy entities, and therefore the partial and total quality of its economy. Therefore, sustainable development is primarily a socio-economic category and the scientific conference hit its purpose when it decided on the basic theme "sustainable economic development".

On the other hand, such a scientific conference gets right to the specific weight precisely because it is being held in Belgrade, in the economically strongest region in Serbia, in which the entities solve the mentioned problems with the utmost interest of investors, direct capital owners and direct users of sustainable development. They, in their own name and for its own account, should identify the depth and breadth of the problem of sustainable development, to thoroughly look into all its aspects, and on the basis of it all returns and optimal business decisions affect the overall quality of business and labor

However, to be able to exercise this inviolable right to decide on this important issue, they must be on time, objectively and comprehensively informed of all the facts that influence the relative category of sustainable development and all the positive and negative repercussions associated with it. This is usual, in line with the view that the whole society and the entire organized market economy development and the realization of its development goals and may be based on a well established information system and its functional subsystems. Thus, when it comes to the management function of sustainable development entity, it should be noted that the realization of its development goals and score them can not be done without relying on adequate information system and its indicators.

It is therefore necessary to observe, in that sense, the current situation, it is objective to assess and point out all the necessary things to do to get it refined and improved in order to achieve the most favorable social results.

Management of sustainable development entities function

When it comes to managing the function of sustainable development in the entities and making optimal decisions for optimal economy (as an integral part of the

124 EKOHOMИKA **ЭС**

economy), it should be noted that the solution of this problem is based on the use of several information subsystems. These are: operational records, statistical records and accounting records.

Business - task of *operating records* is reduced to the registration of the natural indicators (ie. quantitative) of all that relates to sustainable development, such as the type and number: specific funds, the number of engaged on issues of sustainable development and the like.

Such operational records shall be kept in individual acts of entities and serve mostly for their internal information needs, and rarely are delivered to management in general - the human resources for collation of relevant reports vault. Regardless of the lack of coordinated and documented the operational records, may nevertheless conclude that it is as certain information subsystem most widespread and that in terms of sustainable development tool (for more input and less output elements) provides competent management as relatively sufficient information to undertake necessary operative enterprise. However, it must immediately be noted that these records - given its-kind character - do not provide information on which can be viewed economics of sustainable development, much less economic repercussions arising from the formation of the costs caused by the activities of sustainable development. And that means that these operational records also can not serve as a solid and objective basis for management and decision making in all aspects of the economic function of sustainable development and its reflections on the overall economy entities.

The statistical records, as a subsystem of integral Information System entities are even less able to serve as a reliable basis for management and decision making on the functioning of sustainable development, especially for the understanding of the costs on the basis of sustainable development entities. The reason for this, as it comes down to filling prescribed statistical forms, which are sent to professional services entities, and relevant statistical institutions. These forms are more or less uniform and misfit specifics of the entity, and are often filled mechanical and routine, which has the ultimate consequence of the false vault statistical indicators that are constructed in the statistical institutions. This information is presumptive character, unrepentant very little used by management entities (ie. for their internal needs). Therefore, this information subsystem, especially when it comes to functions of sustainable development - in all its economic input and output elements - no more significance for shareholders and for the adoption of their direct decisions of vital interest to the economics and quality of business entities.

The accounting records, as a special information subsystem, is certainly the most important part of an integrated information system entities. This, above all, is because it consists of value indicators and to all those operations and transactions affecting the economic integrity of the entity, and therefore on all inbound and outbound economic determinants (investment and effects) of complete economic system. Since the function of sustainable development an integral part of the economic system rounded entities (with their input and output elements), this is it such economic category as a whole, which includes the accounting information system. The accounting records with the widest and most comprehensive database of business information in general. This stems from the recognition that accounting has the function to monitor and record all events and all operations that take place in the process of business entities and to reflect on the quality of its economy and ultimately business results. Consequently, the accounting records

and provides all the information that express the financial investment in sustainable development, as well as all the negative repercussions arising from the adverse effects resulting from sustainable development entities. In a word, accounting records - as a specific and coherent system of values - should provide information relative abundance of particular importance for the efficient functioning of an integrated system of sustainable development and all its functional parts and effects on the effects of business entities.

However, as part of a very complex and comprehensive accounting records, of particular significance are: chart of accounts, balance sheet and income statement.

Chart of accounts¹ is a method and an instrument of rational and efficient systematization account (accounts), which should allow the registration in the accounts of all relative points and parts of the process of business and labor entities. This provides a real insight into his periodic conditions, dynamics and ultimately business results as an expression of the quality of the economy. Therefore, it is better to say that the chart of accounts is a system account that synthesizes qualitative, quantitative and value indicators of the quality of the overall business process and work (and therefore of sustainable development as the complex input and output elements in this business). Accordingly, such a complex function of the chart of accounts causes its specific characteristics, which should make it a particularly important source of information for the effective performance of the functions of sustainable development, as well as the objective basis for the continuous scrutiny, evaluation and modification of the policy of sustainable development and possible revision of earlier business decisions in the area of operation of capital owners.

Chart of accounts especially enables efficient:

- control of material business (stock),
- · control of the situation and trends of fixed assets and
- control of costs, expenses and income.

All of the above mentioned should provide a complex insight and control of materials and fixed assets (equipment), which requires sustainable development, as well as control costs incurred on the basis of the activities undertaken and measures for sustainable development.

However, in the present circumstances the official chart of accounts is not as systematic, especially in its analytical aspect to providing fast and accurate information on the most important elements of sustainable development and the negative repercussions for the owners of capital. Chart of Accounts does not have a special synthetic, nor analytical accounts in which to record the information on a very important element for conducting effective policy of sustainable development. Thus, the missing accounts of the impact on sustainable development, such as:

- unsustainability of the existing volume of economic,
- inequality created by the existing market structure,
- frequent changes of models of production and consumption,
- more intense competition,
- causing loss of decision with regard to sustainable development and
- withe role of businesses and the impact of other sectors on sustainable development.

126 ЕКОНОМИКА ЭС

Consequently there is no value-information on all investments in this function, which is part of the whole business entities, which certainly prevented a rational policy of sustainable development by the owners of capital.

Also accounts on which are registered data on the costs incurred in connection with sustainable development are relatively poorly represented in the chart of accounts. It seems to us that the number of accounts that record expenses incurred in connection with sustainable development, is not satisfactory and does not allow the owners of capital pun and realistic insight into all costs as inputs in the process of business entities. They remain invisible and blurred many of the events that have a decisive influence on both the development of the subjective factor in the operating process, and the final output elements of this process. In a word, the existing chart of accounts available on all accounts (synthetic and analytical), which can provide complex information about the effects and all the defects of sustainable development, and therefore of all positive and negative repercussions for the final operating results of the entities and the general and common interests economy and society.

Balance sheet² by its basic character represents the main character in the density of periodic nu global financial-material information about the entity. The balance sheet must be realistic to be: value synthetic indicator of economic processes, cycles and operations entity, a special indicator of the quality of available property (assets and their sources), as well as an indicator to quantify these qualities. Therefore it should be the basis for assessing the quality of sustainable development policy and its economy in terms of invested funds and their sources (own and others).

However, as the scheme of the balance sheet as a function of the organic integration with existing chart of accounts, it is also necessary to this balance sheet burdened same disadvantages that are typical for the chart of accounts, and as such can not be an appropriate measure to serve the owners of capital to monitor and quality assessment of sustainable development policy.

Balance of success³ is, also, an accounting document but it also according to its character is a periodic global information on business effects of business entities (ie. its total quality). He is, in fact, the specifications and analytical elaboration of synthetic stated business results in the balance sheet (ie. profit/loss). The importance of this balance is that on its jagged structure costs / expenses on the one hand, and income on the other hand, provides insight not only into a complex financial result and the overall quality of the economy entities, but also the quality of the results of its parts. Since sustainable development is an integral part of the whole business entities (in terms of output and input element) to the income statement would be that it is a solid and comprehensive information on all relevant aspects of sustainable development and the repercussions for shareholders on the overall results of operations of the entities.

However, a critical analysis of the existing chart of accounts and pointing to the incomplete coverage of all aspects of the costs caused by sustainable development entails a result of the incomplete income statement and his inability to express sub-inputs and outputs, caused by a complex of sustainable development, which zakonomerno - directly and indirectly - influence the partial and total quality of business entities, and therefore the wider social results very relevant for further socio-economic development. In particular, this negative fact deprived the owners of capital in the available credible information, without which they can rationally manage and optimize decisions on the

organization and unfolding important functions, such as the economics of sustainable development.

The previously stated clearly speaks in favor of the claim that the current system of recording and presentation of the balance of investment in the process of sustainable development and the costs caused by this activity does not meet the real needs of the market economy. In fact, no matter what the system for recording and balancing in general made significant steps forward in terms of the requirements for harmonization of the market economy, it must be noted that it is still burdened by the legacy of solid economic normativism characteristic of earlier periods of economic activity, which bore the features of poor, and therefore the total or partial disregard of the needs and demands of some immanent non-market system and its competence. And one of the essential competencies of the market system is, without doubt, the right to up to date, reliable and complete information on all phenomena and categories on which it confidently and directly discusses and decides on the merits. Such a phenomenon is also a category of complex problems of sustainable development, in particular the negative repercussions caused by activities at the owners of capital. However, we concluded that there is no chart of accounts, Balance Sheet and the Income Statement are not, as the basic instruments of accounting records and sources of accounting information system do not meet the requirements in this regard the owners of capital, because thus preventing them from realizing their right to direct the management and decision-making one of the most vital problems of their market behavior.

That unfavorable observation leads us to the belief that in this view we should urgently take appropriate measures in order to record and balance sheet presentation of all the elements relevant to the successful operation of sustainable growth brought into line with the increasing needs of capital owners.

In the first place, it means noticing the need for a broader analytical elaboration of the chart of accounts, which should provide separate analytical accounts for all aspects of sustainable development. Namely, the synthetic accounts that record business assets (in operation and construction) it is necessary to open the analytical accounts to be used to register fixed assets whose function is permanently ensuring sustainable development in the process of business entities. Also, within the accounts of origin of fixed assets is necessary to provide separate analytical accounts to incorporate these basic sources of funds, in order to obtain an accurate notion of the character of the sources for the financing of these specific funds for the work (their own and others' financing, short term, medium term, long term).

No less important is that in the context of synthetic accounts opened for working capital and analytical accounts for certain items and materials intended function of sustainable development, as well as the analytical accounts for the registration of these sources of working capital.

Also, and perhaps more important, is the issue of broad analytical development of all types of costs, on the one hand, that arise as a result of preventive measures for sustainable development. On the other hand, it is required to have a wide analytical elaboration of bills on which the complex will be able to record all expenses and losses incurred on the basis preduzimanih measures for sustainable development. It is understood that this request concerns the retention of existing analytical accounts continued to expand them. In addition, it is necessary to further elaborate these analytical

128 EKOHOMUKA **ᢒ€**

chart of accounts is performed in parallel with the grooming and consolidation of the existing drive operational records of resources for sustainable development.

If you approach this broad analytical elaboration of the chart of accounts, you will create preconditions for the balance sheet and income statement, as the global accounting information, become instruments of exact balance of expressing all that is relevant to improving the economics of sustainable development as an important factor in the quality of the overall economy entity

In other words, it will be possible for the total balance sheet entities to draw special subbilans sheet assets and sources relating to the function of sustainable development. This will be far more solid sub-accounting information on all aspects and factors economics of sustainable development. Also, it will be possible from the total income statement entity to draw a special item in the success that applies to all types of costs, expenses and revenues incurred on the basis of sustainable development, which directly affect the final operating results of the entity, as well as the fulfillment of its programmed development goals.

All this should enable the development of specific financial analysis (by professional service) all those issues that are of benefit to the owners of capital and their management and decision making in the complex domain of sustainable development. For the analysis of balance sheet indicators should at least establish the following:

- correlation coefficient between the costs incurred for sustainable development, on the one hand, and expenses arising from activities in this area, on the other hand,
- degree of negative repercussions of costs incurred for the sustainable development of the economy of partial quality: effectiveness, productivity and profitability
- the ratio of dependance between the total investment and sustainable development costs and losses in this area, on one hand, and the total production volume, the gross domestic product, the total revenue, profit, on the other hand, the output elements of business entities, and
- degree of conditionality reproductive ability of the entity and the accumulative costs and losses incurred by sustainable development.

Conclusion

Analysis of these relationships is, in fact, an analysis of economic sustainable development and in particular affordable form should be presented to all owners of capital to be considered on the basis of its attempt to make optimal business decisions.

This paper is written as a humble desire to draw attention to the outstanding problems of the system of recording and presentation of the balance of costs related to sustainable development. If regularity of presented observations and proposals is noticed, it remains the responsibility that a team of experts put into the task of issues and cases expand, deepen and drafting a proposal for the improvement of the mentioned system of recording and presentation of the balance of all aspects of sustainable development.

References

- IFAC-ov Etički kodeks za profesionalne računovođe, SRRS, Beograd, 2007.
- Ilić, B., Stojanović, D. i Simonović, Z., (2013), *Uticaj eksternih troškova na kvalitet ponude i tražnje bakra na berzanskom tržištu*, Ekonomika br. 2/13, Niš, 117-128.
- Kodeks profesionalne etike udruženja vlasnika profesionalnih računovdstvenih agencija, Novi Sad, 2008.
- Ljubisavljević, S. i Jovanović, D., (2011), *Empirical Research on Internal Audit Position of Companies in Serbia*, Economic annals 192/2011. Beograd.
- Ljutić, Ž.B., (2012), *Uticaj napomena na kvalitet finansijskog izveštavanja*, SRRS, 43. Simpozijum, Zlatibor, 2012., 220-241.
- Milojević, M., (2007), *Bilans stanja prema MRS*, Institut za ekonomiku i finansije, Beograd.
- Prokopović, B.B. i Prokopović, Ž.B., (2005), Repetitorijum o iskazivanju imovinske situacije preduzeća (2. izdanje), Proinkom, Beograd.
- Prokopović, B.B., (2007), Računovodstvo (7. izdanje), Proinkom, Beograd.
- Prokopović, B.B., Arsić-Trajković, M.Lj. i Pavlova, M., (2014), *Međunarodni standardi i finansijsko izveštavanje korporacija u Srbiji*, Ekonomika br. 1/14, Niš, 21-27.
- Prokopović, B.Ž., Doktorka disertacije (20015), Međunarodni standardi finansijskog izveštavanja na bazi poštene vrednosti i korporativno upravljanje u Srbiji, Fakultet za ekonomiju i inženjerski menadžment, Novi Sad.
- Prokopović, B.Ž., Nikolić, M.M., Prokopović, S.K., (2015), *Pristup zaštiti ekosistema i održivi razvoj*, Međunarodna naučna konferencija "Životna sredina i adaptacija privrede na klimatske promene", Beograd, 2015., knjiga apstrakata, 79.
- Ranđelović, M., (2013), *Strategijsko upravljanje održivim razvojem organizacije*, Ekonomika br. 2/13, Niš, 174-183.
- Stoilković, M., (2007), Aktuelna pitanja periodičnog finansijskog izveštavanja ocena i mogući pravci razvoja, SRRS, 38. Simpozijum, Zlatibor, 2007., 125-137.
- Škobić, P., (2006), *Računovodstvena regulativa u Srbiji stanje i očekivanja*, SRRS, 37. Simpozijum, Zlatibor, 2006., 275-303.
- Zbirka propisa iz računovodstva, Računovodstvo i praksa br. 1/2007, Beograd, 2007.

Endnotes

- Zbirka propisa iz računovodstva, Računovodstvo i praksa br. 1/2007, Beograd, 2007.
- 2. Prokopović, B.Ž., Doktorka disertacija (20015), "MSFI na bazi poštene vrednosti i korporativno upravljanje u Srbiji", Fakultet za ekonomiju i inženjerski menadžment, Novi Sad, str. 188.
- 3. Ibid.

Nevena Krasulja¹

UNION University - Nikola Tesla, Faculty of Business Studies and Law Milica Vasiljevic Blagojevic²

College of Health and Professional Studies, Belgrade

Ivana Radoievic³

Metropolitan University, Faculty of Management

SCIENTIFIC REVIEW ARTICLE doi:10.5937/ekonomika1603131K Received: Jun 4, 2016

Accepted: July 14, 2016

BRAIN-DRAIN -THE POSITIVE AND NEGATIVE ASPECTS OF THE PHENOMENON

Abstract

A large number of available analyses and research on the brain-drain phenomenon support the fact that this issue is very relevant and important from different social aspects, and therefore we have chosen it as the topic of our paper. While analyzing the available theories, we were confronted with a number of different viewpoints regarding the brain-drain phenomenon: from a neutral impact over the negative to full positive impact of the brain-drain on countries of origin. All researchers, however, agree that there is a range of push and pull factors influencing the brain-drain phenomenon of the general social, economic, family, but also geographical and natural conditions. An important economic factor is the money arriving from developing countries precisely from the people who left their home countries. It is impossible to analyze the brain-drain phenomenon and ignore the globalization process. It directly affects the transformation of the brain-drain phenomenon into brain-circulation as a recent phenomenon.

Keywords: Brain-drain, migration, population, brain-circulation

JEL Classification: J22, J24, O15

ОДЛИВ МОЗГОВА – ПОЗИТИВНИ И НЕГАТИВНИ АСПЕКТИ ФЕНОМЕНА

Апстракт

Велики број доступних анализа и истраживања о феномену одлива мозгова говори у прилог томе да је ова тема веома актуелна и важна из различитих друштвених аспеката, па смо је због тога и изабрали као тему нашег рада. Анализирајући доступне теорије сусрели смо се са више различитих гледишта када је феномен одлива мозгова у питању: од неутралног утицаја, преко лошег, па све до потпуно позитивног утицаја одлива мозгова на матичне земље. Сви истраживачи се међутим слажу да постоји низ фактора који утичу на феномен одлива мозгова, почев од

¹ nevenakrasulja@gmail.com

² milica@tojo.rs

³ ivana.radojevic@metropolitan.ac.rs

опште друштвених, економских, породичних, али и географских и природних услова. Посебну пажњу треба посветити и приливу новца који стиже из дијаспоре у матичне земље. Немогуће је сагледати феномен одлива мозгова без разматрања глобалних кретања и глобализације уопште. Управо она утиче на трансформацију феномена одлива мозгова у феномен циркулације мозгова као новијег феномена.

Кључне речи: Одлив мозгова, миграције, популација, циркулација мозгова

Introduction

The topic of brain-drain is becoming increasingly important. According to the EconLit statistics (American Economic Association), 247 articles were written on the subject in the period between 2005 and 2009 which is twofold more than in the previous 15 years. Also, a growing number of statistical indicators are published annually which are related to the specific country as well as their comparative analysis.

Also, the term "brain-drain" was first used by the British Royal Society and related to the exodus of scientists from Great Britain to the United States and Canada during the 1950s and 1960s (Cervantes&Guellec, 2002). However, today the term is used to describe the emigration of highly educated individuals from the home country. It is important to note that in this case that mainly includes engineers, physicians, scientists, and even other highly educated people with a university degree (Rapoport & Docquier, 2006). Also, migrations usually occur from underdeveloped and developing countries to developed countries, but the shifts from rural to urban areas with high incomes are frequent, too.

Considering that human capital is the initiator of development of every country, it can be concluded that the brain-drain from underdeveloped to developed countries represents a serious problem. The departure of highly qualified people from the country has a negative effect on the overall situation, which further encourages those who remain to consider emigrating. On the other hand, the countries in which educated people arrive to find a job and gain better living conditions are in a position to raise brains (so-called "brain-gain").

The author Ellerman states that in the event of departure of talented people, it is a matter of the classic "prison" dilemma - individual strategies of success do not necessarily equal the best collective strategy of success. When the greatest potentials leave the country, the pressure to achieve general prosperity and well-being begins to decrease (Ellerman, 2006).

According to the author Harry Johanson, brain-drain is primarily a phrase rather than a term. Actually, the very word "drain" indicates serious implications in this case, suffered by the country from which all the potential departures. On the other hand, educated migrants and the countries to which they go in search of a better life are at gain (Johanson, 1965). Of course, there are also situations which bring benefits to the home country. That situation is typical for India, which annually generates high rates of income from the Diaspora. According to Prime Minister Manmohan Singh, India

132 EKOHOMИKA **ЭС**

has "converted the brain-drain misfortune into an opportunity" (http://pib.nic.in/release/release.asp?relid=68026)

The authors Kapur & McHale have identified three long-term trends which encourage migration. Firstly, new companies are constantly opened in the developed countries whose operation is based on innovation. Of course, their need for a qualified workforce is permanent, which on the other hand represents a strong incentive for emigrants. In addition, highly productive and qualified foreign personnel have a positive effect on strengthening the budget of the home country. And finally, employers in the developed countries understand much better the benefits and importance of productivity of highly qualified personnel, and as such offer much better working conditions (Kapur & McHale, 2005).

Importance of the Brain-drain Issue

It is obvious that the economists, at the global level, are very interested in the aforementioned issue. In fact, if the outflow continues at the "already seen" continuity, that could lead to dramatic economic and social consequences (Sattaur, 1989). Of course, economists of the countries from which people are leaving, as well as of those in which they are arriving, closely monitor the situation.

It is important to note that the situation should be perceived firstly from the standpoint of global labour mobility. The qualified workforce moves to destinations with a promising outlook for better income. The research conducted in five countries suggests that growth in income after migration to developed countries has increased to an extremely high 40,000 - 60,000 \$ per year. Of course, only highly educated employees were represented in the sample. It is certain that the stated situation creates a particular type of barrier to migrants who are not sufficiently qualified. While they can easily move to more developed areas in developed countries, such opportunities do not exist in underdeveloped countries as well as in developing countries (Gibson & McKenzie, 2010).

Of course, one must not forget the fact that the brain-drain to the most popular "destination" leaves employees from their home country in an unenviable position. For example, in the US alone, engineers from developed countries with PhDs account for 47% of the workforce working on computer software development. The situation is similar with employees in the medical profession (Gibson & McKenzie, 2011).

Also, often the emigrants in the immigrant country do the jobs for which they are overqualified. This phenomenon is called "brain-waste." According to statistical reports, educated people from the science, technology, engineering and mathematics fields are often working lower class jobs. Also, reports from 2008, from the territory of the US, indicate that 90% of emigrants with a Master's Degree and 96% of those with a PhD Degree have jobs which require only a college diploma and where most of the employees do not possess higher qualifications from their home country (Mattoo et al., 2008).

It is not a rare situation that a certain number of qualified migrants, after some time, decide to return to their home country. The most common reasons for this are improvement of the economic situation and better conditions in he labour market. Favourable outcomes of return are the logical outcome – they now "employ" their new

experiences, financial resources, business connections and acquaintances in their own country.

Also, according to various researches, highly educated migrants upon returning to their country often choose to start their own business. In fact, the duration of stay and the amount of money they have earned at the destination are positively correlate with the start of entrepreneurial activity. This trend is especially present among the Turkish migrants (Dustmann& Kirchkamp, 2001).

In the opinion of many authors, when the situation is viewed from a broader perspective, the majority of migrants returning home are those who did not achieve a satisfactory performance abroad. On the other hand, those who have provided good jobs and living conditions rarely come back regardless of the situation in their home country. Consideration should be given to the trend of large multinational companies opening their branches in a growing number of developing countries, as so often the migrants, as employees of the foreign branch, return to work the same job, but now from their home country (Luo & Wang, 2001).

The Diversity of Views on the Issue

It is interesting to note that three generations of economists have different views and understandings regarding the outcome of brain-drain.

The first movement was created in the 1960s and their main conclusion, in general, was that the brain-drain has a "neutral" impact on the country of origin. In their opinion, the departure of the qualified workforce can be successfully compensated by funds/assets they leave in their country. On the other hand, there are still people in the home country who will finish the work in a proper, professional manner. Also, they point out that the free migration can only have positive implications for the world economy (Grubel &Scott, 1966).

The second generation approached this issue in a much more critical way and presented a number of models that serve as support for the established hypotheses. Specifically, the first ideas were developed during the 1970s and this group of authors claimed that the country which qualified people are leaving in search of a better life is definitely the losing side. The brain-drain from certain areas/countries leads to the creation of imbalance at the international level, where rich countries are becoming richer and the poor poorer (Bhagwati & Rodriguez, 1975).

The third movement was created in the 1990s and observes the issue differently. In their opinion, the brain-drain should actually encourage home countries in the direction of thinking about revising their educational systems, and generally about the possibility of somehow turning this phenomenon into an opportunity. With the help of well-designed programs, it is possible to attract migrants to the home country, to work on creating different network forms of cooperation between developing countries and developed countries, etc. (Stark et al., 1997).

134 ЕКОНОМИКА ЭС

Push and Pull Factors

And in the case of brain-drains, the situation can be considered from the point of push and pull factors (Kello & Wachter, 2004).

The strongest push factor is certainly the conditions in the country - economic, political, legal, and other. When all these factors are unfavorable, the potential for brain-drain becomes stronger. In this situation, the pull factors of the destination for which the people are leaving will act - the possibility of better income and employment, a regulated economic system, etc.

Social security and the cost of living are stated as important push and pull factors. It is certain that people will go to the destinations where their income provides better management of the cost of living. Also, social conditions which are open for good pension possibilities the end of working life are very favourable.

In considering the push and pull factors, one must not forget the family and friendship ties. For example, a person will make a quicker decision to go to another country if they have relatives and/or friends there. Then, if one spouse is already living at the destination, it is more likely that the other will follow them. The same is true for the Diaspora network in the country which is the preferred destination for emigration, and so the strong Diaspora will be a strong pull factor.

Statistics also indicate that the geographical distance between the home country and the preferred destination is a very important factor in the decision relating to departure. The possibility for the family, relatives and friends to see each other often will encourage the individual's decision to leave the home country.

Consideration should be also given to the diversity of languages, possible knowledge of the destination language, possibility to learn that language fast or at all, etc. Knowledge of the language is of great importance especially for highly professional personnel, although the situation is somewhat easier due to the fact that almost all multinational companies in the world use the English language for communication at work.

In addition to these factors, it is necessary to take into consideration some other factors which at first glance may seem less important. Firstly, the age - people who have reached 40 years of age rarely decide to emigrate. One of the explanations for this phenomenon, which is the most accepted, is that young people have more opportunities to get a return on their migration investment since the amortization period is considerably longer. Also, the majority of migrants are male. Women usually go to join their spouses. However, experts in this field predict that this trend is likely to change relatively in the future (Kello & Wachter, 2004).

Recent Understanding of the Brain-drain Phenomenon

It seems that recent research on migration carries many controversial issues. By examining the literature, migration is seen as a "one-way trip" in which the home country is left without qualified personnel in whose education it has invested a lot of resources. At the same time, migrants take with them their property leaving the home country "in the red." However, recent research suggests quite the opposite - the migration of highly educated people produces low costs, and great benefit to the country of origin (in this case, developing countries).

Until recently, it was believed that brain-drain is the main reason for the shortage of educated workforce in underdeveloped or developing countries. However, the authors who conducted recent research cite many reasons to be taken into account (but cannot be linked to brain-drain). Firstly, it should be noted that a large number of factors influence an individual's decision whether and how much to invest in their education. Very strong disincentives were noted in a number of countries when it comes to the stated decision - individuals are not able to "monetize" their knowledge after leaving school due to a lack of jobs, corruption in the education system, setting excessively high fees for private education, etc. In this situation, the laws of supply and demand in the field of education lead to the fact that educational systems become really poor and low-quality. Thus, the brain-drain can be seen as a problem, but only partially (Clemens, 2013).

According to the researchers and authors, the costs of the country left by the qualified employees, i.e. which experienced a brain-drain, are much lower than traditionally believed. For example, the brain-drain, of doctors from Africa (Sahara region) has cost the home country around 2 billion \$. On the other hand, in the past five or six years, the OECD countries have invested 206 billion dollars in the development of the same area (Mills et al., 2011).

Even on the assumption that migrants are not returning to their country, they carry out the transfer of money, skills and democratic ideas in different ways. Their inspiring stories can initiate a variety of improvements in the education systems.

In particular, the benefits that the home country can have in this situation could be summarized, as follows:

Ana Lee Saxenian, a professor from Berkeley University, pointed out that the development of new industries in China, India, Israel, Taiwan, is directly influenced by the educated migrants from these areas (Saxenian, 2002). In her opinion, this is the case of technology transfer and networking between countries. Author from Harvard University states that the situation is the same when it comes to patents (Kerr, 2008)

Also, young people who plan to leave the home country and seek well-paid jobs in the other, invest money in education, which regardless of the further development of the situation remains in the country of origin. The authors came to the conclusion that the Philippines and Fiji are an extreme example of that practice (Clemens, 2009).

Migrants who have good jobs annually send remarkable sums of money to the home country. For example, African doctors working in the United States or Canada, for a period of three or four years, send money which practically paid off their education (Clemens, 2011).

Also, it is important to mention the opinion of Antonio Spilimbergo from the International Monetary Fund, who states that the home country is experiencing a strong democratic influence when most of its young people seek to study in foreign democratic countries.

Brain-circulation – New Overview of the Issue

The governments of developing countries have a very serious task, and that is to work on gathering new knowledge and, in general, new ways in which things can be done. Only in this way can they become competitive in the global market. Generally, further progress of the

136 ЕКОНОМИКА Э€

developing countries depends on the use of knowledge, learning, new research, creation of innovation, collaboration with other countries (Kuznetsov & Sabel, 2006).

In today's knowledge society, in which globalization is becoming stronger, the "flow" of the workforce between markets has become normal. The authors cite that both countries, the home which people are leaving and the one they move to, can benefit from the knowledge and experience of high professionals. On the other hand, the trend of a qualified workforce looking for jobs not only in their country but internationally, too, is increasing, and so the authors increasingly began to write and speak about brain-circulation instead of the concept and term "brain-drain." In fact, brain-circulation is a vital process that contributes greatly to the development of a country. Many countries are developing programs and policies which will help them bring their experts "home", but also to attract a foreign qualified workforce. Of course, thus they will continuously strengthen their economy and competitiveness (Zweig, 2008).

The term "brain-circulation" was first introduced by the author Saxenian, and then numerous authors made their contributions and opinions. The term in this case emphasizes the two-way flow, i.e. the movement of the qualified workforce from country to country. After examining the literature, it can be concluded that most of the authors perceive the brain-circulation as a phenomenon typical of the modern era in which professionals migrate looking for work in different markets. This phenomenon is no longer seen as a loss, as is the case of brain-drain, but quite the opposite -the moving of intellectual resources can serve as a source of benefits for all the countries participating in the exchange (the ones which the experts are leaving and those they are coming to). The transfer of knowledge can be well used, in this case by both sides. Qualified employees are able to turn their knowledge and experience into innovative products/services which cannot be seen as a loss in any case. The developing countries whose employees have left to work in other countries shall profit from the money they send home, as well as from the innovations which promote the economic development of both countries. Brain-circulation as a global phenomenon affects the overall development of societies, nations and the global economy (Daugeliene, 2007).

The author Tung (2008) cites the factors which have a strong influence on the brain-circulation phenomenon as follows:

- 1. Globalization has made countries around the world interdependent, more than they have ever been in the history of mankind
- 2. Abolition of migration barriers which allows for the movement of workforce across different international markets (US, Canada, EU)
- 3. Existence of a large number of people with dual citizenship
- 4. Emergence and strengthening of the concept of a career without borders.

Entering the 21st century, knowledge and its diffusion are observed as initiators of the economic development of countries, both at the individual and global level. Human resources, with the characteristics of professionalism and possession of different skills have never been more important; they are the crucial factor which determines the competitiveness of a country. Therefore, every country should work on finding ways in which to attract and retain a highly qualified workforce.

Of course, consideration should be given to the fact that a country primarily must have resources, i.e. must be an attractive "destination" for the workforce. This depends

on several factors, but the most important one is to provide better conditions for work and life in general (Zweig, Fung &Han, 2008).

When considering the brain-circulation trend, it seems there is no universal recipe. The author Vetrovec emphasizes that it is necessary for all countries to work toward the harmonization of policies so this trend would result in a complete "win-win-win" effect. Thus, the countries the workforce leaves would benefit from the money the migrants send to the home country, the countries in which the workforce arrives would fill the jobs with employees who can perform the work in the best possible way, and finally, the migrants would provide better living and work conditions for themselves (Vetrovec, 2007).

Many authors point out that the existence of a strong Diaspora is one of the main factors which stimulate brain-circulation, and thus economic development. Today's developed communication technology enables the Diaspora to really contribute to the development of institutions and companies in the home country (Teffera, 2004).

After examining the literature, it can be concluded that brain-circulation can be "profitable" for all parties. For example, during the 1970s and 1980s, India experienced a serious, even worrisome brain-drain. The qualified workforce left the country in large numbers and went to the West, in particular the US. However, this trend has now "reversed" - many Indian experts, trained in the US, have returned to India bringing with them knowledge and practical experience. This particularly applies to cities like Bangalore, Delhi, Hyderabad and Mumbai. These cities have received back a large number of professionals from the IT, finance and management fields (Chacko, 2007).

The situation is similar when it comes to China. However, the government has found a way to include students living and studying abroad in different national programs. Also, in 2001, the country adopted a new policy that has encouraged all Chinese immigrants to be involved in the modernization of their country. Of course, before that, a platform was created which allowed the best ways for their contribution. China is an example of a country that is not afraid of brain-circulation counting on all forms of assistance from the Diaspora.

The use of all the advantages of a strong Diaspora no longer leaves the country "desperate" when the qualified personnel migrate. Through various forms of exchange, they can always provide the necessary assistance to the development of the home country, and so contribute to further economic development. In particular, the measures taken by China relate to the following: 1. Opening of centres for post-doctoral studies in order to attract Chinese PhD students who have completed this part of their education abroad, 2. Opening of incubators for employees in the field of high technology, 3. Increased allocations in research centres, 4. Creating good working conditions for migrants who return to the home country, 5. Implementation of the program "Serve the Nation Without Returning to the Nation" (Zweig, Fung & Han, 2008).

Movement of Workforce at the Global Level

The new world economic consensus is deepened and widened the gap between rich and poor. From 1990 to 2011, the number of extremely poor has expanded from 217 million to 415 million people. The average life expectancy of the population in those environments is 56 years and the daily wage is less than \$ 1.25 (Momirović, Janković &Ranđelović, 2016). On the other hand, the according to the UN global database the

138 EKOHOMИKA **ЭС**

number of international migrants is growing dramatically - in 1960 there were 75 million, while in 2010 the number increased to 215 million. Analysts have tried to determine the underlying causes, and so they naturally took into account the total population growth at the global level. However, they came to the conclusion that this trend did not cause the growth of migration to this extent. The factor that has drastically increased the number of migrants, especially in the 1990s, is the dissolution of the USSR.

When observing the movement of migrants to more developed countries with high incomes, it can definitely be concluded that the number of migrants is steadily growing. Measured proportionally, in 2010, the number of people who sought "a better life" in a foreign country tripled compared to the 1960s (http://esa.un.org/migration).

Most migrants come from countries which do not belong to the OECD Group. According to valid statistical indicators, migration on the line of underdeveloped and developed OECD countries continues to dominate, which amounts to 72.6 million people, or 45% of international migration recorded in 2010. Then, there is the movement from developing countries to developed countries, or expressed numerically - 55 million people, accounting for 38% of total migration. And finally, there are movements between the developed countries, although their participation is the lowest and amounts to 28 million people, or 17% of the total international migration (Özden, Parsons, Schiff & Walmsley, 2011).

The share of highly educated migrants is much higher than in the lower educated. The most dramatic brain-drain was recorded in the small poor tropical countries, and the trend particularly intensified after the 1990s. Haiti and Jamaica can be mentioned as good examples, where nearly 80% of educated people have immigrated to another country. Also, about 20 countries have lost almost a third, even half of university-educated personnel, and among them are Libya, Somalia, Cambodia, Afghanistan, Hong Kong, Ireland (Docquier, Lowell & Marfouk, 2009).

OECD countries are the territories with the highest brain inflow, up to 85% of highly educated migrants from various countries around the world.

Authors Docquier and Marfouk cite that the term "highly educated emigrant" means any person older than 25 who came from another country and has an academic diploma. Also, we should mention the category of illegal emigrants regarding the migrants who do not have a resolved relocation status. After a certain period, they either return to the home country or regularize their status in the country where they decided to live (Docquier & Marfouk, 2006).

Conclusion

Exploring the literature on the brain-drain issue, we can conclude that this phenomenon is very present and current from different social aspects. Human capital and knowledge, are the driving force of development of every country, so at first it can be concluded that the brain-drain from underdeveloped and developing countries is detrimental to the overall situation of these countries. On the other hand, the countries to which educated people are going to find jobs and obtain better living conditions, are in a position to brain-gain. However, analyzing the available theories we encountered three completely contradictory economic standpoints when it comes to the outcome of brain-drains. The first consider that the brain drain has a "neutral" impact on the home country.

The second generation of researchers claims that the country which qualified people are leaving in search of a better life definitely suffers a loss, while the third movement argues that the brain-drain could actually be observed as an opportunity and incentive for the home countries in the direction of thinking about revising the educational systems.

There are a number of push and pull factors which influence the brain-drain phenomenon and that are generated fom the general social, economic, family to geographical and natural conditions. Recent research has shown that the home country shall experience a strong democratic influence when a large number of young people are looking to study in foreign democratic countries. On the other hand, those who leave their home countries after graduation continue to send money, usually for different family reasons, which has a great significance in most underdeveloped countries in the overall economic order. In the research of any social phenomena the globalization factor must not be forgotten. It affects the transformation of the brain-drain phenomenon to brain-circulation phenomenon. Many countries are developing programs and policies which shall help in returning their experts "home", and also attract foreign qualified personnel by simultaneously strengthening its economy and competitiveness. Recent research suggests that taking advantage of a strong Diaspora no longer leaves the country "desperate" when qualified personnel migrate. Through various forms of exchange, they can always provide the necessary assistance to the development of the home country and thus contribute to its further economic development.

We can conclude, based on the data we obtained, that the number of people in 2010 who sought "a better life" in a foreign country tripled compared to the 1960s (http://esa. un.org/migration). This alarming figure is the motive for authors to continue to work on this phenomenon in the context of their country.

References

- Ana Lee Saxenian (2002). Transnational Communities and the Evolution of Global Production Networks: The cases of Taiwan, China and India. *Industry and Innovation* 9, no3, 183-202 Available at
- www.cgdev.org/files/4473_file_Global_Hunt_for_Talent_Brief.pdf , last accessed 9 October 2008.
- Bhagwati, Jagdish N. & Carlos Rodriguez (1975): Welfare theoretical analyses of the brain drain, *Journal of Development Economics*, 2, 3: 195-222.
- Cervantes, Mario & Dominique Guellec (2002) —The brain drain: Old myths, new realities, *OECD Observer No. 230*, January.
- Chacko, E. (2007). From brain drain to brain gain: reverse migration to Bangalore and Hyderabad, India's globalizing high tech cities. *Geo Journal*, 131 140.
- Daugeliene, R. (2007). The position of knowledge workers in knowledge-based economy: migration aspect. *European Integration Studies* (1), 103 112.
- Docquier, F. & A. Marfouk (2006): *International migration by educational attainment* (1990-2000). International Migration, Remittances and Development, Palgrave Macmillan: New York.

- Docquier, F., B. L. Lowell & A. Marfouk. (2009) A gendered assessment of highly skilled emigration. *Population and Development Review 35/2*. 297–322.
- Docquier, Frédéric & Hillel Rapoport. (2006) The brain drain, in L. Blume and S. Durlauf (eds.) *New Palgrave Dictionary of Economics* (second edition), London: Palgrave and MacMillan.
- Dustmann, Christian & Oliver Kirchkamp. (2001) *The optimal migration dura-tion and activity choice after re-migration*. Institute for the Study of Labor (IZA) Discussion Paper no. 266. Bonn, Germany: IZA.
- Edward J. Mills et al (2011). The financial cost of doctors emigrating from sub Saharan Africa: human capital analysis. *British Medical Journal* 343: d7031
- Ellerman, D. (2006) *The dynamics of migration of the highly skilled: a survey of the literature*. In Diaspora Networks and the Inter-national Migration of Skills How Countries Can Draw on Their Talent Abroad, ed. Y Kuznetsov, pp. 21–57. Washington DC: World Bank.
- Gibson, J. & McKenzie, D. (2010) The economic consequences of brain drain of the best and brightest: Microeconomic evidence from five countries, *World Bank Policy Research Working Paper* No. 5394.
- Gibson, J. & McKenzie, D. (2011) Eight Questions about Brain Drain. *Journal of Economic Perspectives*, 25 (3): 107-28
- Government of India. (2010) Prime Minister's Office Press Release: Hiren Mukherjee Memorial Lecture Parliament of India Prime Minister's Remarks. December 2. http://pib.nic.in/release/release.asp?relid=68026
- Grubel, H. & Scott, A. (1966) The international flow of human capital, *American Economic Review*, 56: 268-74.
- Johnson, H. (1965) The economics of the brain drain: The Canadian Case, *Minerva* 3(3): 299-311.
- Kapur, D & McHale, J. (2005) *The Global Migration of Talent: What Does it Mean for Developing Countries.* Centre for Global Development, Washington, DC.
- Kuznetsov. Y. & Sabel C. F. (2006) Work globally, develop locally: diaspora networks as entry point to knowledge-based development. *Innovation: Management, Policy & Practice* (8), 45-61.
- Luo, Y-L. & Wang, W. (2001) *High-skill migration and Chinese Taipei's indus-trial development*. In International mobility of highly skilled, OECD, 253–70. Paris: OECD.
- Kello, M. & Wachter, B. (2004) *Brain Drain and Brain Gain: Migration in the Europian Union after Enlargment*, ACA, Academic Cooperation Association, Brussels
- Aaditya, M., Neagu, I., C. & Özden, C. (2008) Brain waste, Educated immigrants in the US labor market, *Journal of Development Economics* 87 : 255–269.
- Clemens, M. (2009) Skill Flow: A Fundamental Reconsideration of Skilled worker Mobility and Development. Working Paper 180, Center for Global Development, Washington, DC, August 27
- Clemens, M. (2011) *The Financial Consequences of High Skilled Emigration: Lessons from African Doctors Abroad.* In Sonia Plaza and DilipRatha, eds, Diaspora for development in Africa (Washington DC: World Bank, 2011)

ЭСЕКОНОМИКА 141

- Clemens, M. (2013) What Do We Know About Skilled Migration and development?. Migration Policy Institute, Washington DC.
- Kaz, M. (1991) Scale economies in education and the brain drain problem, *International Economic Review*, 32, 3: 743-59.
- Momirović, D., Janković, D. & Ranđelović, M (2016) Invensment, world economy and poor countries, *Ekonomika*, Vol. 62/1: 83-96.
- Özden, Ç., C. R. Parsons, M. Schiff, & T. L. Walmsley. Where on earth is everybody? The evolution of global bilateral migration 1960–2000? *World Bank Economic Review* 25:1 (2011): 12–56 [2].
- Omar, S. (1989) World Bank calls for halt to Africa's brain drain, New Scientist, November 25, page. 28.
- Saxenian, A. (2005) From Brain Drain to Brain Circulation: Transnational Communities and Regional Upgrading in India and China. Available at: http://people.ischool.berkeley.edu/~anno/Papers/scid-2005.pdf
- Oded, S., Helmenstein, C., & Prskawetz, A. (1997) A brain gain with a brain drain, *Economics Letters*, 55: 227-34.
- Teferra, D. (2004) *Brain Circulation: Unparalleled Opportunities, Underlying Challenges, and Outmoded Presumptions*. Available at:http://www.wes.org/ewenr/symp/DamtewTeferraPaper.pdf
- United Nations database on international migrant stock, (2008) revision (http://esa. un.org/migration) and World Trade Organization online database (http://stat.wto. org)
- Vertovec, S. (2007) *Circular Migration: the way forward in global policy?* Available at: http://www.imi. ox.ac.uk/pdfs/wp4-circular-migration-policy.pdf
- Kerr, R., W. (2008) Ethnic Scientific communities and International Technology Diffusion. The Review of Economics and Statistics 90, no3, 518-37
- Yun-Chung, C. (2007) *The limits of brain circulation: Chinese returnees and technological development in Beijing*. Available at: http://www.cctr.ust.hk/articles/pdf/WorkingPaper15.pdf
- Zweig, D., Fung C. S., & Han D. (2008) Redefining the Brain Drain: China's "Diaspora Option". *Science, Technology & Society*, 1 33.
- Zweig, D., Fung C. S., & Han D. (2008) Redefining the Brain Drain: China's "Diaspora Option". *Science, Technology & Society*, 1 33.

142 EКОНОМИКА **ЭС**

Jelena V. Gluščević¹ College of Business Economics and Entrepreneurship, Belgrade, Serbia Andrija D. Durović² Belgrade, Serbia SCIENTIFIC REVIEW ARTICLE doi:10.5937/ekonomika1603143G Received: Jun 18, 2016 Accepted: August 23, 2016

ASSET MANAGEMENT CRIMINAL ORIGIN AND MAIN CAUSES INSUFFICIENT EFFICIENCY MANAGEMENT SYSTEM

Abstract

Implementation of an efficient mechanism seizure of property of criminal origin implies the existence of a functioning system of governance. The construction of special management body - the Directorate of the RS further strengthens and supports the idea of restitution of property crime. Testing its weaknesses and make proposals to address the shortcomings in the work of the target. Insufficient specialization Directorate slow down a special procedure and reduces the effectiveness. Specialty necessarily implies authority and their specialization, which is omitted. The authors analysis of key deficiencies in the management of the asset1s of criminal origin at all stages of the process - keeping, sales and purposes of the seized property, trying to point out the guidelines to eliminate obstacles in the work of the Directorate, the possibilities of promoting its control activities and raising the efficiency of the entire process of expropriation.

Keywords: confiscation of assets derived from crime, specialization, property management, Directorate for Seized Property Management.

УПРАВЉАЊЕ ИМОВИНОМ КРИМИНАЛНОГ ПОРЕКЛА И ГЛАВНИ УЗРОЧНИЦИ НЕДОВОЉНЕ ЕФИКАСНОСТИ СИСТЕМА УПРАВЉАЊА

Апстракт

Спровођење ефикасног механизма одузимања имовине криминалног порекла подразумева постојање функционалног система управљања. Изградњом специјалног органа управљања - Дирекције у РС додатно се оснажује и подржава идеја реституције криминалне имовине. Испитивање њених слабости и давање предлога за превазилажење недостатака циљ су рада. Недовољна специјализација Дирекције успорова посебан поступак и смањује ефективност како процеса управљања, тако и целог поступка

¹ jelenaperisic@ymail.com

² djurovic.andrija@hotmail.com

одузимања имовине. Специјалност органа нужно подразумева и њихову специјализованост која је изостављена. Аутори анализом кључних недостатака у процесу управљања имовином криминалног порекла, у свим фазама поступка - чувања, продаје и намене одузете имовине, настоје указати на смернице отклањања кочница у раду Дирекције, на могућности поспешивања њених управљачких делатности и подизању ефикасности целокупног поступка одузимања.

Къучне речи: одузимање имовине проистекле из кривичног дела, специјализованост, управљање, Дирекција за управљање одузетом имовином.

Introduction

In a series of problems that accompany continuous modernization and progress of society present in many modern countries, and even in our own, there is also the problem of the existence of specific types of crime, including the most dangerous and most devastating phenomena highlights the problem of organized crime. After great difficulties that marked the first steps in forming a system for combating organized crime in Serbia, after the year 2000, the political determination to stop the crime becomes more pronounced. On the way to building an effective system has been first to the legislative reforms in this direction, the formation of new organs with specific responsibilities and adoption of the National Strategy for Combating Organized Crime³. In a series of efforts by Serbia invested to build up an adequate system in place to curb or at least controlled increased level of crime, especially organized, a significant step in that direction by adopting a special law4 which introduces new measures of criminal law, a measure of seizure of assets derived from crime. Two key elements are united to that extent; First, its ability to "break" a conglomeration of power concentrated in the hands of the leaders of criminal groups and to destroy their property and other support, efforts to provide it, "material justice" that violated the acquisition of the assets of criminal origin, and through the implementation of the principle of criminal law that a no one can enrich criminal activities. The seriousness and commitment of the state to be in this way to solve the problems of growing criminality shown by the fact that the new measures supported by special legislation (lexspecialis for its application), as well as institutional support which included the establishment of special entities with responsibilities aimed at its implementation. One of them is the Directorate of Asset Management where the primary jurisdiction of the jobs provided by a special law, which are mainly focused on the management of the assets of criminal origin. The powers of the Directorate are manifold and include a range of management skills of its employees, and its jurisdiction is wider than the management of seized assets in a separate procedure and involves taking care of the assets of criminal origin originating from ordinary criminal proceedings. This set of powers is quite broad and requires a specialization of personnel working in the Directorate and includes a collection of various knowledge and skills. The aim is to highlight the importance to the whole system of seizure of property and assets of criminal restitution in general, has a Directorate which is the last resort in the system of seizure.

The success in the implementation of measures necessary to the efficient functioning of the Directorate and all shortcomings in his work directly slow down the process of confiscation of property and affect its performance. The paper points to problems that occur due to, on the one hand, the fact that it comes to an area that is unknown in our legal system (regardless of inexperience, forming a system of criminal asset forfeiture application of special measures launched its application without the necessary preparations), as other hand, due to the now perceived inertia of the mechanism of seizure after years of application of the measures and the slow progress of management powers of the Directorate. The analysis of the management and reference to key brake in the work of the Directorate is trying to point out the essential directions of improvements in its work and in general the effectiveness of the criminal restitution of profits.

Management as part of the proceedings of assets of criminal origin

The problem of creating a criminal profits is not new, but it takes a lot larger scale when it comes to organized and especially serious crimes. "Although there is no common understanding of the concept of organized crime, and all his experts agree that it is not just about a particular type of crime, but about extremely dangerous, kind and complex form of delinquent behavior that threatens the foundations of a modern state and the basic principles of a democratic society" (Grubac, 2008: p. 31) A monopolistic and oligopolistic structures of organized crime, allowing them to acquire high profits, which further reinforces criminal organizations and products likely negative effects such as washing or investing illegal business and corruption" (Williams, 2012: p. 306). Thus gotten profit is extremely difficult to identify, often because it is a web of actions that occur over a longer period of time and involve an organized plan of further property profit that was illegally acquired. "But money can be the Achilles heel of criminal organizations, because it leaves behind a clear trace, and therefore law enforcement authorities sometimes allows you to detect the movement of "dirty money" and thus expose the activities of criminal groups and their members" (Adamoli, Di Nicola, Savona , Zoff, 1998: p. 21)

"Organized crime is extremely difficult to define, and so it is difficult to recognize in this particular case and prove, mainly because at his illegal activity is intertwined with the other, completely legitimate activities" (Grubac, 2009: p. 705). Measures aimed at assets of criminal origin are different and exist in criminal law from the time when there is the state response to crime. Determining the property that has a criminal origin usually traditionally done in the framework of criminal proceedings, when, together with a finding of guilt for committing an offense established and the circumstances related to the height of the realized property and proceeds resulting from the execution of that part of the second approach involves new regulations confiscation of criminal assets the origin of the existence of specific criminal law measures. First, the rate of seizure of property is not only a newly created measures of criminal law, but it is part of the overall system breakthrough ideas to trace criminal enrichment and to the extent possible, seize illegally gained profit. "The structure of national, and international crime today exists a crime aimed at damaging the property of natural and legal persons (even states), in which

individuals, groups and whole organizations when committing crimes is illicit property gain "(Jovasevic, 2008: p. 249). The emergence of the new measures was escorted and institutional support, created the bodies that deal exclusively with implementation of the measure, was passed comprehensive legislation that regulates all the issues relevant to the implementation measures, but even for its application implements a special procedure, with special rules. Regardless of the efficiency of the judicial procedure of seizure of property, the idea of restitution of property crime cannot be achieved without a well thought out and efficient management mechanism. The final purpose is achieved only by the sale of confiscated property or directs the purpose of which is at least partially achieves the principle of restitution. Such partial restitution would include directing funds received from seized property to the persons affected by the actions of a criminal offense or directing the programs that would indirectly provide satisfaction for injured persons. Such restitution is not possible in cases of special procedures, or expediency achieved by the weight of the realization of the idea to provide the highest level of conservation of the property value of its sales and adequate purposes. This final phase of the movement of the underlying assets is extremely important, because the only seizure of assets of criminal origin without her good guidance such enforcement measures were pointless and would represent more than a measures criminal character of restitutionary what they eat and legal nature⁵.

On the other hand, the management responsibility of the Directorate are provided not only with respect to property confiscated under special procedures, but also in relation to the objects of the offense and the material gain acquired by the offense, that is, in relation to the property seized goods in the ordinary Criminal Procedure Code. Although the primary role of the Directorate when it comes to special procedures, clean character she has for ordinary criminal cases, especially if we take into account the situation in practice which shows that the present multi-decade low effectiveness of measures aimed at confiscation of proceeds from criminal offenses. "Fluctuations practice in the application of this institute are being such that this measure is not imposed even in those cases when it was obvious that the criminal activity acquired immense pecuniary gain" (Tomic, 1982 p. 46). There are various reasons for this. The author, for example, lists some reasons why the courts have not imposed this measure, "because the pecuniary gain was of little value because the defendant was indigent, he was unable to determine the precise amount of accrued benefits, which are not placed "necessary proposals" by the Prosecution "(Tomic, 1982, p. 146.) the establishment of a mechanism that would work" post-trial "that would in the course of judicial proceedings acted only as an extra, a major boost towards the imposition practice piloted rate on assets of criminal origin. The fact that the property during the proceedings Directorate care as good hosts assists judges insofar as it will be during the proceedings, the imposition of provisional measures on the best way to preserve its value, and then completing the procedure there is no certainty about its further movement in the direction of settlement damaged and partial or complete just satisfaction.

Comparative review of the basic problems of the management system

The emergence of new forms of crime in the greater or lesser extent affected all modern states and they should not necessarily build defense systems for these negative

146 ЕКОНОМИКА 😜

social phenomena. The ways in which conducted the seizure of assets of criminal origin are different from country to country but in all observed the same problem and that is the interdependence of several elements necessary for the efficiency of subtraction. Managing it is one of them.

Italy is a country that is among the first adopted legislation on confiscation of assets of criminal origin, and that was a model for many other countries in the implementation of a new vision of combating organized crime. "Italian recipe suggests that it is desirable to have a specialized body with high autonomy ie independence in work, as well as better coordination of police and prosecuting authorities" (Jankovic, 2007: p. 22) As pointed out by Paoli "If we look first quantity, by type of goods confiscated from 1982 to 1993. The statistics are as follows: real estate accounts for 48.1% mobility 29% Securities 16%, companies 5.3% and other 1.6% of the total confiscated property "" If we look at the same parameters as assessed by their greatest value is derived from the value of confiscated real estate (63.5%), followed by companies (23.6%), securities (7.3), mobility (5.4%) and other items make up only 0.8% of the total confiscated assets "(Paoli, 1997: p. 266). If we were still searching for the reasons of insufficient efficiency in the implementation of these measures, we can find them in a reduced staff potential of authorities and their insufficient engagement. "Several police inspectors acknowledged that, particularly in the past, the police authorities have not been given enough energy to creating conditions for the application of preventive measures, because the press work on urgent cases that arrive daily, and that there is a problem of lack of human and material resources with the competent authorities for the implementation of these rate "(Paoli, 1997: p. 266).

France is a country that knows only the confiscation of property that is based solely on the sentence, and it may be imposed only in cases where the person whose goods are deducted as an offender convicted of a criminal offense. "As the shortcomings of the French system at the investigation stage could be cited, first training program attended by financial investigators, which normally consists of general programs where financial aspects are ignored, as in not giving priority to financial services of this type, and their poor material and human resources "(Vettori, 2006: p. 59). The main drawbacks of the French system of seizure of property are precisely in the field of procedural law and legal norms which regulate the procedure of confiscation, because the primacy of the debate on the punishment of any person for a criminal offense with which he is charged, while the issue of seizure and confiscation of profits that the execution of the accused gained, a secondary issue. "Further obstacles to the implementation of standards on Seizure and Confiscation of property in France, arising precisely from the characteristics of their legal solutions, according to which the necessary judgment to crime acquired a good could be seized and where it usually does not allow use of the so-called standards. reverse the burden of proof "(Vettori, 2006: p. 60). Also confiscated property management is not rated as satisfactory. However, the changes in 2012 which introduced the Agency which the special jurisdiction puts these activities, it is hoped that this problem will be solved. All confiscated goods become state property.

Macedonia, like other countries in the region have opted for less reformist approach in the adoption of regulations that would regulate confiscation of assets of criminal origin. She was among the first countries in the region that made the regulations relating to the confiscation of proceeds of crime but opted to do complementing existing measures aimed at confiscation of property. The management of confiscated assets at the beginning

of the implementation of measures of confiscation has not been resolved, but the lack of rectified by passing the Law on the management of confiscated assets, property benefits and items seized in criminal and misdemeanor proceedings⁶ and the establishment of the Agency for the management of seized assets. Confiscation in the Macedonian law, as in other countries of the region has not fully come to life, and how to properly Kambovski concludes, "changes in the substantive and procedural criminal law may remain short of breath moves, if the implementation of the new regime of confiscation not provide the necessary legal and institutional conditions" (Kambovski, 2007: p. 651). Yet the establishment of the governance mechanism of Macedonia demonstrates a firm stand on the commitment to establish an effective system of confiscation of assets and to improve the implementation of existing measures to revoke crime gained profits

Bosnia and Herzegovina is another state in the region has tried to ensure swift national response to organized crime by modifying existing norms relating to the confiscation of material gain. That way is to expand the possibilities for confiscation of material benefits for individual offenses introduced some changes compared to the usual procedure of confiscation orders. Such a move from local experts often evaluated as being insufficient, it is noted that "the legislator should foresee a special procedure or the existing additional detail in the framework of the CPA" (Hananspahic, Halilagic, 2011: p. 320). In support of this it was pointed out that in Bosnia and Herzegovina there are plenty of poor practice in implementing measures confiscation orders. In addition to the consent of the majority that is necessary to create a mechanism of asset management, which at this point in this country does not exist, and expressed the opinion that "may still be the moment to insist on consistent implementation of existing regulations because they often innovation regulation in the beginning to wash inefficiency of their application" (Mujanovic, 2007: p. 10). Without denying the possibility that this position is correct, we still would not agree with him, because if studies show that for decades does not work fighting a particular mechanism, their small corrections can not do much, but the birth of a new mechanism to monitor the new entities procedure to support its operation and safety, are certainly better break the bad tradition. In support of our position is the fact that is raised by the research center of the Parliamentary Assembly of Bosnia and Herzegovina to the "Progress Report on Bosnia and Herzegovina in 2011, in part related to the fight against organized crime and terrorism, the Commission concludes that the legal framework for seizure assets is not fully implemented and seizures of criminally gained assets remain uneven across the country "(Jelec, Osmanovic, 2012: p. 9) Lack of management bodies confiscated property creates another problem of functioning of the entire system extended seizure, which caused the to the courts because of this problem often do not dare to impose the said measure.

Directorate for the management of seized property

One of the key elements for a successful implementation of the measures of seizure of assets derived from crime is the existence of an effective authority that would manage such confiscated property. Inefficiencies in the application of measures of seizure of property greatly contributes to the lack of regulation of the process management and treatment of such confiscated property, and especially after the end of court proceedings.

The essence of the solution to the problem lies in the fact that the seizure of property as the process does not end with the termination of the court proceedings, rather than right after it (but also during it) follow an important step, which is to determine the fate of such confiscated property. At this stage, it is very important to the existence of special managerial skills management, which must have the authority to whom they entrusted the management authority. When passing a special law, and in the tradition of some foreign solutions, as well as the directives of international documents that refer to the obligation to have a mechanism of asset management, the legislature did the right thing by transferring the responsibility for managing assets on a special, independent, specialized body, the Directorate of Management confiscated property. "Legislation on organized crime should be a complex and well-organized set of rules from different branches of law: substantive criminal law, of course, but also the rules of criminal procedure, administrative law, the rules on the organization of courts and government bodies, the rules on enforcement of criminal sanctions, tax law etc. "(Papa, 2008: p. 26).

The Directorate is a central authority for taking care of property that is derived from a criminal offense and it is authorized to conduct, both during the temporary seizure of property, and at the stage of permanent confiscation of assets, whereby, depending on the stage of the proceedings, has a different circle of power. In addition to property that is derived from a criminal offense (which had been taken under the provisions of this Act), the Department has dealt with the property being seized under the Criminal Law, the subjects of a criminal offense (in the sense of Article 87 of the Criminal Code) and material gain that has acquired a criminal offense (Article 91 and 92 of the criminal Code), which is very important and you should have a positive impact on the implementation of these measures in the criminal proceedings. Furthermore, in its area of responsibility includes the property given on bail in criminal proceedings, the exercise of professional judgment seized proceeds from crime and disposal of such funds received in accordance with the law. Activities related to material gain proceeds from economic offense, ie misdemeanor, as well as performing other tasks in accordance with the Law are also under the jurisdiction of the Directorate. Its powers are broader asset management needs of asset management which is taken in accordance with the law, because it wanted to take advantage of large capacity of the Directorate for the needs of ordinary criminal proceedings due to the absence of a successful executive mechanism in these proceedings. However, we are not convinced that the wide range of actions it needs to undertake can be successfully carried out according to the existing organizational and structural composition of the body. The results of the previous work of the Directorate general public knows very little, and we see that even one small part of the professional scientific community dealing with the topic of seizure of assets derived from crime, did not deal with, or is only briefly dealt with the theme of the management of seized assets. Although seemingly Directorate is the "executive" authority, which has no significant impact on the efficiency in the process of restitution of property crime, but has a duty to carry out the decisions taken in the court proceedings, is her initiative is very important. Precisely because the lack of focus on issues of public administration is unjustified, unacceptable and contributes to the omnipresent figure of superficiality in the analysis of the newly created instruments to combat the most serious forms of crime.

The Directorate was established as a body within the Ministries of justice and as such has legal personality. Its headquarters is in Belgrade, but there is a possibility of

forming a special organizational units outside the seat. Organisational structure of the rules in this regard are thoroughly regulated by a special law. To perform the tasks within the purview of the Directorate, establishes the Sector for download and management of the assets proceeds from crime. The Department for Management of Seized Assets proceeds from crime, educated three immediate unit - Department download the confiscated property, the Department for confiscated property management and the Department for general and material-financial affairs. The Director who is appointed and dismissed by the Government on the proposal of the Minister of Justice, and with the fulfillment of the conditions for the operation of the Act states. He holds the position of civil servants, and is subject to applicable regulations that exist for civil servants⁷, as well as regulations governing the issues of conflict of interest, which the legislator wanted to strengthen the guarantees that this function is performed by impartial and independent person. The rights and obligations of employees, the regulations on state employees and civil servants." Civil servants, according to the Law on Civil Servants, employed persons who perform tasks within the scope of state authority" (Perisic, 2009: p. 93). At work, internal organization and systematization of jobs in the Directorate, the regulations on public administration, and if the need arises for resolving administrative matters, the regulations on administrative proceedings.8 In addition to the special conditions required for work in state bodies, further specialization of employees was not carried out, and which do not favor further positive legal labor law regulations which are in a constant process of changes. "We must emphasize that the Republic of Serbia, the only announced the revision of privatization, other elements of the post-transition events do not exist, nor is there a general consensus on the fundamental issues of regulation of the economy and society as a whole, which together represent an obstacle for the development and hamper the difficult path of reforms expected" (Perisic, Perisic-Gluscevic, Karakas, 2014: p. 43).

The main powers of the Directorate in which he embodied the very purpose of the existence of such a specialized body, is the management of the assets proceeds from crime, which is seized under the provisions of the Act. Also, in the same manner Directorate manages the cases of criminal offenses, and assets given as pledge, which are all values which were seized imposed measures in regular criminal proceedings. It is "the concentration of responsibility for dealing with the assets and objects that stand in a certain relation to criminaliscausa" (Ilic et al., 2009: p. 70). Authority, therefore, as a primary authority has confiscated property management, and in its control powers include warehousing, storage and sale of assets, disposal of assets in accordance with the statutory directives, as well as expert evaluation of seized property. The set of enumerated powers makes the whole of its control activities in the strict sense of the word and its core business. There is capacity for further expansion of the powers of the Directorate in cooperation with other relevant authorities of a special procedure. As one of the possible forms of authority would be desirable and activities of the Directorate in the event that the criminal origin of the property is proved in a separate procedure. In this case it would be important to include the tax authorities, which would at least partially compensate for those cases where it is evident that the proceeds of crime but there is no possibility of proving the bar to avoid cases of tax evasion, which "threatens the optimum business environment by putting businesses that pay taxes in a worse situation than those who avoid it" (Marcetic, Curcic, Lazovic: 2016: p.238). Yet questions opportunities taxation of goods on suspicion of criminal origin as a model of seizure of assets of criminal origin is a separate issue.

150 EКОНОМИКА **ЭС**

Problems that cause sluggishness management mechanism - the brake efficiency of the Directorate

Directorate for Seized Property Management as the sole body constituted to manage the assets of criminal origin has quite a complex role and to jobs within the scope of its powers could be considered effectively completed it is necessary to solve a series of comlicated tasks. "The reasons for prescribing special rules for temporary seizure of objects and proceeds to the proceedings for organized crime are the need for these measures more easily and more effectively implement than in the general procedure" (Lazin, 2005: p. 554). Specialty in any segment includes support facilitated the performance of tasks in a way that directs the operation of the specific tasks and perform them. First, the Directorate as well as the idea that the mechanism of the build up to the level of the institution and that this segment of criminal issues provide serious support, had an initial problem, which consists in the fact that it is the work began immediately after the establishment of the system of seizure of property. A series of powers vested in it imply the expertise of specialist staff who would have knowledge in individual areas according to the different powers under. Systematization of jobs in the Directorate did not cover the employment of experts in the field of management. "Specialization in any field, including in the judiciary is justified only if the operators which entrust certain, specific tasks, according to a criterion distinguishing themselves in relation to their colleagues, primarily professional and specially trained" (Skulic, 2005: p. 226). Directorate performs quite complex and specific tasks in relation to the whole process of seizure, which although has a specificity takes place according to the rules that apply to criminal proceedings. As pointed out by Nelen, "those who enforce the law are primarily trained for the implementation of the norms of Criminal Code but have little or no general knowledge and experience in the areas of commercial law, banking and other regulations that are relevant for understanding the mechanisms of the financial world." (Nelen 2004: p. 528). Not only the Directorate, all authorities acting special procedure requiring a certain degree of specialization and expertise, and the principle of specialization has not carried out in any segment of the treatment. The "past experience of our country in the fight against organized crime and corruption and the experience of other countries shows that regular prosecution its standard mode and the organization would not be able to answer the above tasks in the area of organized crime." (Vazic, 2008: p. 400). Especially, they could be regarded as sufficiently qualified to act in the procedures of seizure of assets, which, apart from the fact that the most serious forms of crime, and contain specifics regarding the property as subject to this procedure. The problem is even greater because as one of the powers of the Directorate states and training of civil servants in the field of seizure of assets, and that the authority Directorate is not done, and it is questionable whether it has the technical capability to perform, as there is no where to be dressed for it. The solution to these problems would be the systematization of jobs within the Directorate which would include recruitment of experts in various fields who would be trained for highly professional activities in the domain of each of its activities, under the authority of the Directorate has. It would be helpful to the Department Directorate There knowledgeable team to deal with all the training of authorities in the process of removal. This would significantly contribute to the first, introducing professional persons on the specifics of special measures, and



secondly, encouragement of authorities to impose measures to deprivation of property of criminal origin.

The Directorate is obliged to store and preserves expropriated property and to manage it as good hosts, and a good expert. The essence of its activities should be reduced to such treatment with the property that would largely maintain the value of the property that she had at the time of seizure, all with minimum costs that will have the Directorate. When selling property, but also its assessment, must strive to be as equivalent to a matter that is subject to obtain the highest possible selling price, while endeavoring not to go below the market value. With things that have specific properties, shall be treated in a special way, according to the provisions laid down in the Act. The basic authority of the Directorate is also its most important powers that as quickly and efficiently preserve the value entrusted her stuff. If the Directorate of this authority entrusted a specialized company that is engaged in the sale of goods, such a company would weigh that has employees who have knowledge of trade activity, to a company which successfully operated, the sale should be conducted as soon as possible in order to preserve the value of things. Following the same principles should act Directorate, no matter what kind of treatment can cause misunderstanding, because in the eyes of the beholder state should not profit by selling the confiscated property. If we analyze the provisions on the method of distribution of funds received such misunderstandings can be expected (according to the Law / 2008 only 20% of the funds received from the sale of the property had a human purpose, while under the Law / 2013 all funds paid into the budget of RS). The problem is that the Department is not used in the best possible way, because his authority is entrusted assets of very different characteristics, in order to preserve its value or to be alienated by the highest possible value, not necessarily the possession of good marketing and sales departments within the government but which it does not.

Next, a very important issue is the issue of preserving the value of forfeited property. There are certain things that are by their nature such as to lose value over time - some minor, some more. The practice, at least so far, shows us that the specific procedures lasted for a year. Assets held during the proceedings the subject keeping the Directorate if it is sold, usually loses its value. Therefore, the legislator gives another authority Directorate, which is that she, with the approval of the competent court without delay can sell movable property or to entrust certain individual or legal entity its sale. In certain situations, if the Department considers it more appropriate solution, this work can be entrusted to another person that is specialized in the sale of certain assets. Very rarely will the business of selling the assets Directorate will be able to do without the help of specialized persons, especially when it comes to specific items that are sold at special markets specialized for certain types of goods. Overall, and bearing in mind the method of sale that is binding for the Directorate, we are faced with the problem of the adequacy of the attribution of powers to the Directorate, which in its composition does not have enough trained staff to work in sales. The legislator has foreseen this possibility only for mobility, while real estate, regardless of the loss of value can not be sold. The problem grows when it comes to managerial responsibilities of the Directorate of legal persons. Is it feasible, according to the current capacity of the Directorate to ensure the continuation of operations of the legal entity which is in the process of removal is transferred to the jurisdiction of the Directorate. Just at this point, we will briefly open the following question: How is the Directorate as the managing seized assets right solution for us?

152 EКОНОМИКА **ЭС**

In fact, if we look at comparative solutions, we will see that very often in the capacity of managing and selling assets appear specialized institutions that are specially trained for trade and which have as their task to the confiscated property to the fullest extent possible to preserve its value, and that it as a commodity is sold to the market of and sold at the best possible price. As a shining example in this field, we can cite the example of the Netherlands⁹, where the business of selling the property performed by the Agency, which has no power management than asset sales. The laws in this country in effect allow a quick sale of assets in order to preserve its value, and if the defendant is convicted, the value it returns, thus achieving the lowest loss. Agency fact suggests the court what is the best selling and what is not, until the court accepts this advice. Items that are deducted immediately sold, and the money is immediately placed in a bank deposit. For us, the Directorate is authorized to sell the property, which is managed during the proceedings, following the judgment; However, one can rightly ask whether she, as a specialized body possesses the personnel who have the knowledge of trade skills. What is the interest of the state to provide the highest possible value of the property which was found to originate from criminal activities and of the impact of this issue on the total budget that creates sales? Furthermore, the law provides, and exceptionally, the court may grant that instead of selling certain assets to accept a guarantee offered by the owner or other person, whose value is determined in relation to the value of the confiscated property. This is an initiative of the owner or other person; Therefore, they must offer a guarantee, and the court then considers whether to accept it.

In the event of the sale of forfeited property, whether it is performed in order meet the running costs of the Directorate or in order to preserve its value, it must be done in a legally prescribed manner. Necessary procedure for public auction, which is advertised in the "Official Gazette of the Republic of Serbia" and other media, with the exception of perishable goods and animals that can be sold without such the procedure. The aim of the legislator was to ensure transparency of this process the sale to allow it more competitive bidders. These sales, on the other hand, can cause the opposite effect in certain cases, especially when the owners of the property to be sold were known members of the mafia organization, because buyers reluctant to attend these competitions (if they have information on the origin of such property). The legislator further provides the necessary conditions for the sale of movable property. It must first be sold at the same or higher price than the appraised value, and the assessment by the Directorate ..

Second, the different responsibilities of the Directorate are in various stages and specific and criminal procedure. Acquaintance with the powers of the Directorate we have seen how different management powers actually derives from a basic, management. The costs of keeping and maintaining temporarily seized property shall be borne by the Directorate. However, given that the seized items as they may arise that require huge maintenance costs, the Directorate has the authority to decide such specific assets remains with the owner, with the obligation to take on the old property with due professional care. Some specific types of assets (such as, for example, yachts), require great care costs, and provides for the possibility that in such cases the owner shall bear the costs of storage and maintenance of the property. What is the practice in countries that have a developed system of seizure of property, and especially its management, are its "cost management". The money will be confiscated temporarily from a specific person, ie the funds are frozen, they should be transferred immediately into the hands of the Directorate, which

would further disposed in such a way that the money they fertilize more, using a variety of benefits of banking. This would avoid the subsequent possible costs that could arise when returning confiscated property, because in addition to legal costs and the aging of the assets that have been seized, the owner needs to pay the interest on the assets which the Directorate had. In practice, it often happens that the cost of storage and maintenance of fixed and certain movable assets may be very high. Therefore, the Directorate data is another option if you do not resort to any of the above, and it is to sell a certain portion of movable property in order to defray the costs incurred certain asset management. In the event that a decision on temporary seizure of assets is terminated, all costs shall be borne by the owner of the Republic of Serbia. This option applies only to the sale of movable property which are less value and only for the purpose of settlement costs of maintaining valuable assets. Until a final decision on the property is temporarily revoked, funds that are obtained its marketable kept in a separate account of the Directorate. In case of rejection of the request of the public prosecutor for confiscation of property, or if there is a decision establishing that the property in question does not arise from a criminal offense, means taken must be returned to its owner, and with interest and the right to compensation for damage that has been caused. The funds from this account until a final decision can be used for damages to third parties whose property was destroyed or for costs which it itself had Directorate in connection with the destruction. So the intention is that this money, other than specified exceptions when it can be taken, stored until a final decision. However, we believe that this solution is extremely uneconomic, because the funds kept in the account of the Directorate instead be deposited in the bank. Sure, money can be deposited for so that at any moment it can raise if necessary, so that we see no justification for such losses which result from keeping money in the account of the Directorate. It is precisely in these examples observes certain inertia mechanism of state management of seized assets, in contrast to solutions in which the business of asset management, or at least its sale, hired specialized bodies who need this kind of regular business operations.

Finally, and in the pursuit of the mechanism of seizure of assets derived from crime in our law is as better, we want to initiate certain issues inevitably arise in the application of the rules of asset management, and its sale and use. One of them is this: who is authorized to carry out valuations of the assets in their sales? How to deal with enterprises that are subject to confiscation, and which is owned by the defendant and whether their work will be suspended until a final decision? We point out the importance of resolving this issue due to the fact that the shutdown of large companies can bring significant losses. When we talk about the extent of confiscation of her rule, which is quite justified to take away everything for which it is determined that a benefit gained by the perpetration of a criminal offense. However, when talking about the seizure of property for which prove that the criminal origin, especially in some complex cases, it is a far greater value of the property that is the subject of the proceedings and it is desirable to make it the occasion of a certain "business-plan" in order to as far as possible preserve its value. Such a system, for example, exists in the Netherlands, where the Agency asset management itself estimates that it is profitable to take away certain things, and that assessment indicates court. This relieves the management body of any costs that would be incurred by deducting actually storing and sale of certain things that can immediately estimate that would bring more harm than good. Also, the question arises:

who is authorized to assess the value of assets in the Directorate? Does the Directorate has staff that is capable of such an assessment, particularly bearing in mind the wide range of items that must be evaluated and whether in certain situations need to hire experts to do the assessment, which would be a logical solution. Law / 2013 regulated the confiscation of property of legal entities, but may ask how we prepared for management companies if they are owned by a person against whom a decision on a temporary or permanent seizure of assets. Suspension of the work of these firms could lead to large losses, so the most appropriate solution was continued operation of the company with the appointment of a new management under the auspices of the state, which would allow for the preservation of the value of confiscated property or change of activity of the company.

Analyzing the regulations of other countries pertaining to the management of assets derived from crime, we note that the domestic asset management model mostly just rewritten the solution of other countries. It seems to us that there were still many segments of legislation in this field remain unapplied in practice, as the main reasons for this is still not enough experience in asset management, but also the still insufficient capacity of employees, in both qualitative and quantitative terms. Namely, as a model for defining the responsibility of the Directorate, was taken primer Belgian legislation even though they do not have extra-long experience in this field, given that the set of rules on the management of seized assets to them adopted in 2003. In order to improve the rules relating to asset management in Belgium has formed an office of the Public Prosecutor's Office which is the main task assigned to asset management - Central Office for the seizure and confiscation. Modeled on the authority granted to the Belgian office, the data and powers of the Directorate of the RS, and their comparative analysis can be seen a great similarity. Asset management, which includes its storage and sale, is a complex task and is the second, both on field an important part of the deal after finding that the property actually has a criminal origin. In our country, if we talk about the confiscation of material gain, expressed the problem of its management, which is influenced by the existence of a small number of cases in which the measure was imposed. Judges have avoided the imposition of these measures, since they were aware of the lack of capacity for managing seized assets. Successful management of the seized assets is a necessary link in the chain of seizure. Without an efficient management mechanism, the effect of seizure of property of the offender has not been fully achieved.

Conclusion

In a series of elements that were indispensable to the whole idea of "aggressive" confiscation of criminal profits realized, the establishment and work of the Directorate is considered to be particularly important. Yet the mere existence of a specific criminal justice institutes do not provide the guarantees for its efficiency. In order for a special procedure to be effective, especially to the criminal forfeiture of any profits must be practical to remove the brakes that exist in the management of property which is temporarily or permanently revoked. These deficiencies are present partly due to the fact that for every novelty necessary time to be able to function properly in a system where it is entered, or on the other side due to a lack of interest in improving key deficiencies mounted system. Perhaps the strongest

support in increasing the efficiency of the Directorate as the managing authority would be in the implementation of narrow specialization and specialties throughout the process of seizing property, a first in the Directorate. We think it is extremely important to work on improving the efficiency of all the powers of the Directorate has, not only in the primary, which is linked to the procedure for management of seized assets. The powers that has been quite different to the domain of action and include good orientation of staff with the necessary specialization. It is necessary to give greater space management issues and its importance in the whole process of taking away property, because we believe it is not enough to control the authority only carried out, it is necessary that it be carried out in the best possible way and with present maximum efficiency in sales, the purpose and keeping the confiscated property.

References

- Adamoli S., Di Nicola A., Savona U. E., Zoffi P., "Organised crime around the world", European Institute for Crime prevention and Control, Helsinki, 1998., page 21.
- Grubač, M., "Organizovani kriminal u Srbiji novijeg vremena", Borba protiv organizovanog kriminala u Srbiji, od postojećeg zakonodavstva do sveobuhvatnog predloga reforme, UNICHRI, Beograd, 2008., str. 31.
- Grubač, M., "Organizovani kriminal u Srbiji", Zbornik radova Pravnog fakulteta u Splitu, God.46, 4/2009, str. 705.
- Hasanspahić, S., Halilagić, N., Oduzimanje imovinske koristi pribavljene krivičnimdjelom", Anali Pravnog fakulteta Univerziteta u Zenici, str. 320
- Ilić, G., Nikolić, B., Majić, M., Melilo, Đ., Komentar Zakona o oduzimanju imovine proistekle iz krivičnog dela sa pregledom relevantnih međunarodnih dokumenata, uporednopravnih rešenja i prakse ESLJP, OEBS Misija u Srbiji, Beograd, 2009., str. 70.
- Jovašević, D., Gajić-Glamočlija, M., Krivično delo pranja novca, BeoSing, Beograd, 2008., str. 249.
- Janković, S., "Mafija, DNA i DIA", Revija za bezbednost, Broj 4., 2007., str. 22.
- Jeleč, N., Osmanović, A., "Propisi o oduzimanju imovine stečene krivičnim delom i upravljanje tom imovinom", Istarživački sector Parlamentarne skupštine BIH, istraživanje br.107., 2012., str. 9.
- Kambovski, V., «Novi režim konfiskacije imovine u KZ Makedonije», Pravni život br. 9/2007, 2007., str. 651.
- Lazin, Đ., "Organizovani kriminalitet i krivičnoprocesno zakonodavstvo", Zbornik: Kazneno zakonodavstvo: progresivna ili regresivna rešenja, Beograd, 2005.,, str. 554.
- Marčetić, M., Ćurčić, N., Lazović, K., "Modaliteti evazije poreza na dodatu vrednost u RS", Anali Ekonomskog fakulteta u Subotici, br.35/2016, str.238.
- Mujanović, E., "Oduzimanje ilegalno stečene imovine", Transparency international Bosnia and Hercegovina, 2007., str. 10.
- Nelen, H., "Hit them where it hurts most?", Crime, Law and Social Change, 2004., str. 528.

156 EKOHOMUKA **●●**

- Papa, M., Uvodnareč, Borba protiv organizovanog kriminala u Srbiji, Beograd, 2008., str. 26.
- Paoli, L., "Seizure and confiscation mesaures in Italy", European Journal of Crime, Criminal law and Criminal justice, Vol 5/3, 1997., page 266-267.
- Perišić, V., Službeništvo i pravo službenika, Novi Sad : Pravni fakultet za privredu i pravosuđe, 2009., str. 93
- Perišić, V., Perišić-Gluščević J., Karakas N., "Noveliranje radnih standarda, novo zaposljavanje ili novo otpuštanje, Pravo-teorija i praksa, br.10/12, 2014., str. 43.
- Tomić, Z., "Kriteriji i problematika kod utvrđivanja vrednosti imovinske koristi pribavljene krivičnim djelom" Godišnjak Pravnog fakulteta u Sarajevu, Sarajevo, 1982., str. 146.
- Škulić, M., NacrtZakona o državnim organima u postupku za krivična dela organizovanog kriminala, Novo krivično zakonodavstvo Srbije, Beograd, 2005., str. 226.
- Važić, N., Predlozi za izmenezakona o organizaciji i nadležnosti državnih organa u suzbijanju organizovanog kriminala, Borba protiv organizovanog kriminala u Srbiji, UNICRI, Beograd, 2008., str. 400.
- Vettori, B., Tough on Criminal Wealth, Exploring the practice of proceeds from crime confiscation in the EU, Springer, 2006., str. 59.
- Williams, G. W. E., "Policy implications of different theoretical approaches to organised crime", Journal of Financial Crime, Vol.19, Issue 4, 2012., page 406.

Endnotes

- 3. "Official Gazette of RS ", no. 23/09.
- 4. The Law on Confiscation of the Proceeds from Crime ("Official Gazette of RS", no. 32/2013)
- 5. On the legal nature of the measures to find more Gluscevic , J., " Confiscation of the Proceeds from Crime " , doctoral dissertation, Faculty of Law , Union University, Belgrade, 2015 , p . 94-111.
- 6. Official Gazette of RM ", no. 98., 04.08.2008.
- 7. The Law on Civil Servants ("Official Gazette of RS", no . 79/2005, 81 / 2005-corr., 83 / 2005-corr., 64/2007, 67 /2007-corr., 116/2008 and 104/2009.
- 8. Regulated by the Law on Administrative Procedure ("Official Gazette" Nos. 33/97 and 31/2001 and "Off. Gazette of RS ", no. 30/2010).
- 9. Material from the conference organized by the Council of Europe "Confiscation of the Proceeds from Crime Serbia", Belgrade, 2012, Jan Knobbe, senior asset manager, The Netherlands.

ЭЕ ЕКОНОМИКА

Vol. 62, july-september 2016, № 3 P. 159-172

Jasmina Ognjanović¹

University of Kragujevac, Faculty of Hotel Management and Tourism, Vrnjačka Banja SCIENTIFIC REVIEW ARTICLE doi:10.5937/ekonomika16031590 Received: Jun 6, 2016 Accepted: Jun 28, 2016

INTELLECTUAL CAPITAL: CHARACTERISTICS AND SIGNIFICANCE IN THE SERVICE SECTOR

Abstract

Intellectual capital is a main driver of creating value in the company by combining the use of human, structural and relational capital. It consists of knowledge and skills of employees, business culture, databases, company's reputation and relations with external partners. The aim of this paper is to point out the significance of intellectual capital and its impact on service creation and performance of service companies. Based on the applied inductive-deductive and qualitative method, we can come to the conclusion that human capital has a dominant role in service companies. The effect of human capital is conditioned by the existence of non-material infrastructure, i.e. structural capital. Creation of good competitive position of service companies can be achieved by developing relational capital. Therefore, service differentiation and good image of service companies in the environment can be achieved by owning and good management of intellectual capital, i.e. management of human, structural and relational capital.

Key words: intellectual capital, services, human capital, structural capital, relational capital

JEL classification: M_{21} , D_{83} L_{80}

ИНТЕЛЕКТУАЛНИ КАПИТАЛ: КАРАКТЕРИСТИКЕ И ЗНАЧАЈ У УСЛУЖНОМ СЕКТОРУ

Апстракт

Интелектуални капитал је главни покретач стварања вредности у предузећу комбинованом употребом људског, структурног и релационог капитала. Чини га знање, искуство и вештине запослених радника, пословна култура, базе података, репутација предузећа и односи са екстерним партнерима. Циљ рада је за истакне значај интелектуалног капитала и његов утицај на креирање услуга и перформансе услужних предузећа. На основу примењене индуктивно-дедуктивне и квалитативне методе закључује се да људски капитал има доминантну улогу у услужним предузећима. Деловање људског капитала условљено је постојањем нематеријалне инфраструктуре односно структурног капитала. Креирање добре конкурентске позиције

1

¹ jasmina.lukic@kg.ac.rs

услужних предузећа могуће је остварити развојем релационог капитала. Дакле, диференцираност услуга и добру слику услужних предузећа у окружењу могуће је постићи поседовањем и добрим управљањем интелектуалним капиталом односно управљањем људским, структурним и релационим капиталом.

Къучне речи: интелектуални капитал, услуге, људски капитал, структурни капитал, релациони капитал

Introduction

Creation of economic value in contemporary conditions is based on knowledge and other non-material resources. Drucker (1993) ponts out that knowledge is a main resource of modern economy and "knowledge workers" are the most important labour force. Basic component of intelectual capital (hereinafter IC) is knowledge. Intellectual capital is defined by Roos & Roos (1997) as a set of invisible property of the company and the most important resources for acquiring competitive advantage of the company, whereas its is started from the fact that knowledge is crucial for acquisition of sustainable competitive advantage. In knowledge-based economy, it is important to stress the role of service sector since it has a share of more than 70% in GDP in OECD countries and employs 65% of working population of these countries (OECD - Organisation for Economic Co-operation and Development, 2000). Main products of service sector are services that are largely results of the work with the help of knowledge and thus the role of intellectual capital, as value driver, is of crucial importance in this sector.

IC significance is different in manufacturing and service sector. The possibility of differentiating the services and the attempt of the company to distinguish itself from the group of many others that are similar, it is not possible to realize without the use of IC components – knowledge, skills and abilities of employees, adequate business culture, developed image and good cooperation with business partners and users. On the other hand, in manufacturing companies the incomes from service activities can have a high share in the structure of total income realized. For example, companies such as IBM, SKF and Xerox, create more than 30% of income on the basis of services provided whereas the share of service activities in the profit often exceeds 50% (Gebauer et. al., 2010). Service companies become increasingly productive in industrial countries – to the extent that we could say we live in *service-based ecomony* (Kianto et. al., 2010). This statement is also confiremed by the data on the impact of this sector on creation of GDP, the number of workers employed in this sector and a part of personal income that population spends on services.

The significance of IC, as a significant company's strategic resource, is best illustrated by the theory based on resources. According to the authors Steenkamp & Kashyap (2010), the IC significance comes from its role in development and creation of competitive advantage, provision of high profit potential for the future and high business performances. In addition to intellectual capital the second, most frequently used term in literature for the expression of non-material resources (knowledge, information,

160 ЕКОНОМИКА ЭС

intellectual property, experience) that create value (Stewart, 1997) is intangible, non-material, intellectual assets. (Lonnqvist, 2004).

The purpose of this paper is to point out IC role in contemporary business terms of the company, which are characterized by a high competition level and frequent changes of business conditions. In addition, we also point out the impact of this capital category to the creation of services and performances of service companies. The paper consists of three chapters where the first one describes IC, its components and characteristics, the second points out the characteristics of services, while the third one provides a review of previously published studies on the presence of IC and its components in service sector with a discussion on which IC components affect the service companies performances the most.

Intellectual capital concept

There are two ways to measure the value of the company, one is based on financial reports and the other on evaluation of the company by capital market. Deviation of market in relation to accounting value of the company was the main reason for studying the issues of intellectual capital. The authors Sveiby (1997) and Lev (2001) believe that the difference between market and accounting value of the company represents the value of intellectual capital. Having in mind the deviation between the values mentioned, some studies point out that more than 2/3 of the value of company's property is IC (Van Buren, 1999) while others point out that 80% of market value makes this capital category (Tesng & Goo, 2005). Many companies in USA in the period from 1981 to 1993 had the value that was 2-9 times more in capital market in relation to their accounting value (Edvinsson, 1997), which points to the high impact of IC on company's market values.

Intellectual capital, as a crucial strategic resource of the company is actually based on knowledge. The knowledge is a main component of human capital, which is a result of learning process. In addition to human, intellectual capital also consists of structural and relational capital that affect value creation. Edvinsson (1997) observes IC as the most important resource in value creation process in the company. What follows is the defining of the intellectual capital by different authors, in chronological order.

Among the first ones, the term intellectual capital is explained by Itami (1991) as a set of a big number of elements, such as technology, client loyalty, company's image, corporative culture and skills management. Brooking (1996) sees IC as a combination of four categories: market property, intellectual property, human resources and infrastructure. Edvinsson & Malone (1997) defines IC as a knowledge that can be transformed into value while Stewart (1997) by IC implies packed useful knowledge, i.e. company's intellectual material – knowledge, information, intellectual property and experience – which can be used for wealth creation. The primary definition of IC within Swedish insurance company Skandia referred to the possession of knowledge, experience applied, organization technology, consumer relations and professional skills that provide competitive advange for this company in the market. (Edvinsson, 1997).

Lynn (1998) by IC implies intellectual material that is used for creation of value added. Nahapiet & Ghoshal (1998) use the term IC in order to mark a significant resource and ability to take over the actions based on knowledge and skills. Lev (2001) observes

how IC as non-material resources are generated by innovations, unique organizational design and experience of the employees. Intellectual capital is a combination of human, structural and relational resources of the company (MERITUM, 2002). According to Lonnqvist (2004), IC includes non-physical resources that refer to skills of employees, organizational resources, manner of performing activities and relations with company's stakeholders. Intellectual capital is a competition leverage for small innovation companies, i.e. IC is main internal determinant of the competitiveness of small and medium companies (Tovstiga & Tulugurova, 2007). In Table 1, you can see the review of IC characteristics.

IC characteristics Autor(s) • It is difficult to accumulate non-material resources Carnall (1999) • Simultaneous multiple use • Simultaneously being both inputs and outputs of business · Rarity Riahi-Belkaoui (2003); · value • impossible to imitate Grosh & Wu (2007) · non-existence of substitutes · intangible nature • results of economic transactions Gallego & Rodríguez (2005) · ability for creating future income • resources used in the long run intangibility • effect of time delay (benefits from R&D function last 5-9 Tesng & Goo (2005) • not present the zero sum effect (gain on one side equals the loss on the other) • multiplication rule

Table 1: Review of intellectual capital characteristics

Based on different definitions of IC term, the conclusion can be reduced to the following: IC is a main driver of value creation in the company by combing human, structural and relational factor. Intelectual capital consists of knowledge, experience and skills of the workers employed, business culture, databases, company's reputation and relations with business partners. Therefore, we can list the most important characteristics of IC: intangibility, impossible to imitate; bigger intensity of using intellectual resources increases their value and craetes future long term benefits.

• yield increase right (factors value increases with the use)

Over the time, significance of intellectual capital was growing in modern economy, different authors have attempted to define its components in the most comprehensive way possible. As it was mentioned before, it is one "intangible property"whose value is difficult to assess. For proper evaluation of IC it is necessary to, first of all, understand its components and their impact on value creation process.

Brooking (1996) points out market property, intellectual property, human resources and infrastructure as components of IC. Edvinsson & Malone (1997) and i Organisation

162

for Economic Co-operation and Development – OECD, 1999 divide IC into human and structural. Lev (2001) classifies IC into innovation, human and organization resources while Sveiby (1997) and O'Donnell & O'Regan (2000) divide IC into competence of the employees, internal and external structure.

For the purposes of this paper, the classification of IC into human, structural (organization) and relational (external) capital (Roos & Roos, 1997, Bontis, 1998, Guidelines for Managing and Reporting on Intangibles – MERITUM Guidelines, 2002).

Human capital, in MERITUM Guidelines (2002), is defined as knowledge that employees bring along when they leave the company and it includes knowledge, experience, creativity, skills of employees. Mihailović, et. al. (2015) point out that main driver of development and business success of the company is precisely the continuous learning and improvement of skills and abilities of management and employees. Structural capital or, as it is often called, organizational or internal capital is defined by Bontis (2001) as a combination of databases, software, hardware, organizational structure, patents, trademarks and all other organizational capacities that support the productivity of employees. Relational capital includes all resources related to business interactions of company with external environment – with buyers, suppliers or research and development partners (Guidelines for Managing and Reporting on Intangibles – MERITUM, 2002).

Service characteristics

According to OECD (2000) data, service sector is becoming increasingly important in information society: share of manufacturing activities is gradually reduced to level below 20% while the share of service sector in GDP of OECD countries is more than 70%; employees in this sector make about 65% of total number of employees (OECD, 2000). Main task of service sector development is the creation of the assumptions of creating such services that the consumer will observe as something that provides him an attractive value added.

Selection of services is based on expectations and desires. Desires refer to the manner in which the consumer tries to satisfy his needs. The expectations are related to the aim of the user and based on user needs and desires whose realization is conditioned largely by the elments of relation capital: reputation of the company in the market, marketing, earlier experience of the user with service company, etc. (Edvardsson & Olsson, 1996). When the expectations and desires of users are satisfied, the value is created. The value can be measured by putting the service quality level and the costs of their provision into relation (Sandstrom et al., 2008).

Numerous authors mention the intangibility as an important characteristics of services (Parasuraman et. al., 1985, Moeller, 2010 and Rodie & Martin 2001). The decision on selection of services depends on how the potential user experiences the intangibity feature. However, majority of services cannot be expressed in numbers, measured, tested, which makes the choice more difficult. Due to intangibility, managers cannot easily understand how the consumer sees their services and evaluate their quality, which can create a problem in service creation (Parasuraman et. al., 1985). Intangibility gives creators space to create a service that can be different from the others. In addition,

intangibility makes service imitation more difficult for the competitors. Creation of a unique, differentiated, intangible service depends on intellectual capital that service company owns, i.e. knowledge, skills and abilities of employees to create innovation services with the support of appropriate infrastructure such as database, business culture, hardware, software, i.e. structural capital. Maintenance of good business relations with familiar customers, with whom a company has a long, successful cooperation, as well as image of the company itself is a verified recipe for high business performances.

Intangibility of services affects the height of company's income through the possibility of differentiation and inability of imitation by the competition. In the same way, intangible nature of IC plays an important part in role creation process of which successful usage also depends the quality of services as well as the height of income in the company. Therefore, IC affects high business income of service companies through the impact on production of differentiated services that will entirely satisfy the expectations and desires of users. Once more, we must stress that intangible resources are main source of competitive advantage in knowledge-based economy (Zigan & Zeglat, 2010). Unique and quality services, in contemporary conditions, can be created only with the usage of human, structural and relational capital.

Intellectual capital in service sector

Main role in service sector belongs to the user, because without him there is no income. It is required that there is a harmony, compatibility between service offer and the needs of service users. Needs and satisfaction of needs are the basis of service creation process. Requests of service users and manner of their satisfaction are different among individual users. The essence is to create a service that meets the expectations of users and creates a value added for him. In order to achieve that, it would be good to "include" the user in the very process of developing new types of services, which acquires a high level of closeness between participants in supply and demand of services. Williams et. al. (2010) and Anantadjaya et. al. (2015) point out that closeness between producers and users of services can be achieved if the producers track the behaviour, attitudes and needs of users and understand what are the "vulnerable" spots in their expectations which creates a high level of loyalty and confidence of users who, in the economy based on knowledge, become very important.

In this paper, service sector is seen as a sector consisting of services of communication, finances, trade, education, health protection, real estate rent, food and accommodation and public administration services (OECD, 2000). The study carried out by Bontis et. al. (2000), includes government, financial services, entertainment, hospitality and tourism, private education, computer and professional services in service sector, while chemical, electronic companies, manufacturing and construction companies are included in non-service sector. Lim & Dallimore (2004) in their study, by service companies include banking companies, companies from telecommunication, entertainment and tourism field, transport and financial companies.

It is already said that IC includes human, structural and relational capital. In this order we will present works that have so far analized the role of all the components in service sector and their basic conclusions.

164 ЕКОНОМИКА ЭС

Human capital is a very important component of IC having in mind that it largely affects the work productivity. Some characteristics of employees, such as experience, abilities, affect the perceived value of service users. Studies show that "loyalty of the customers" can be predicted by measuring "loyalty of the employees" (Bontis et. al. 2000).

Namasivayam & Denizci (2006) have analized the impact of human capital in service companies. Authors believe that human features, such as creativity and emotional intelligence of the employees must be adequately evaluated since they affect the perceived value of the consumer. Based on their work, we come to the conclusion that business processes of service companies are closely related to human capital, where the authors see the value created for the users in the following manner (Namasivayam & Denizci, 2006):

Human capital * **structural capital** = **value for consumers**

Human capital, along with structural capital, is especially important in the relations between service user and service provider. For service users, it is important that provider has the knowledge in order for their desires to turn into a specific role. In addition, it is important to recognize the form and nature of knowledge and contribution of each employee.

Significance of human capital, as IC component in service companies was also pointed out by Edvardsson & Olsson, (1996). This capital is seen as a crucial resource of the company. Perception of consumers on service quality largely depends on how the employees see their desires and needs. Due to the employees, service becomes "visible" so in that way, knowledge, experience and motivation of employees have a significant contribution to the achievement of high performances of service companies. In addition to the impact on service quality, employees are important factor in the field of costs as well – earnings of employees in service sector are higher on the average in relation to manufacturing companies.

The IC significance in service companies was also studied by Kianto et al. (2010) where they reach the conclusion that in these companies there is increasingly more expressed demand for multiple and complex knowledge of employees in relation to manufacturing companies so the role of people (human capital) is much more important in service sector since the quality of service provided largely depends on them. They point out that IC is the crucial driver of value, regardless of the type of activity that the company deals with. Lim Dallimore, (2004) in this study, based on 36 service companies in Australia, point out both human and relational capital as the most important components of IC. These categories of capital provide significant benefits for the existing and potential investors, as well as higher service quality. Navaratnam & Harris, (1994) define five management principles that can strengthen human capital as main creator of value. Those principles are: respecting people, management based on facts; satisfaction of consumers and teamwork.

Martelo-Landroguez & Martin-Ruiz (2016) were engaged in examining the impact of knowledge to creating the value for service user. Study was carried out on an example of banking sector of Spain and starting assumption that service companies that use their knowledge more efficiently create more benefits for their clients was confirmed.

A small number of authors have dealt with examining the role of structural capital in service companies. Kianto et al. (2010) start from assumption that structural capital is somehow more important for manufacturing companies in relation to service. However, IT application in service sector changes the role of structural capital in service companies. Components of structural capital, such as information and communication systems, are extremely important not only because of optimal process of work but also because of the satisfaction between the users of these systems, i.e. employees (Zigan & Zeglat, 2010).

Castro et. al. (2004) analyze the role of company's reputation in development of relational capital and point out that relations of the enterprise make its most valuable assets. Kianto et al. (2010) believe that relational capital is more important for service than manufacturing companies having in mind it is required to make a harmony between the supply and demand of customers. A close relationship between manufacturers and users of services imposes a need for establishing a good relationship and mutual understanding between these two participants. Having in mind that a small number of authors deals with analyzing relational capital in service companies, in this paper we start from a brand, image of the company as an important component of relational capital. Brady et. al. (2005) in their reasearch work point out the significance of branding the services in relation to physical goods and point to a direct relation between the service intangibility level and significance of branding. In addition, Krishnan & Hartline (2001) in their paprt, point out the significance of the brand in evaluation of services quality. For the authors, Zigan & Zeglat (2010) satisfaction and loyalty of service users, relations with suppliers and reputation of the company represent the most important components of relation capital in case of service, hospitality companies.

Intangibility makes service selection harder from the part of users and thus the brand can appear as a service differentiation source. Strong brand has a positive impact, directly or indirectly, to the perceived service quality in case of consumers. Onkvisit & Shaw (1989) point out of the significance of the brand in service selection by the part of consumers and they observe services as goods. They mention Holiday Inn as the first company that branded its services in hospitality industry. Using brand name ensured unique, standardized services for the tourists everywhere in the world, where this company has transformed accomodation services into goods.

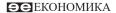
Inspired by characteristics of hospitality industry, the authors Fitzgerald et. al. (1991) have defined a system for measurement of business performances in service sector. System is based on connecting financial and non-financial measures in order to control and develop performances of service companies. Dimenions and measures in this model reflect the characteristics of service sector. The system connects financial and non-financial measures and includes six categories summed up in two groups: the first is results dimension, which includes competitiveness and financial results and the second one is determinist dimension, which contains factors that affect all the performances – service quality, flexibility, resource usage and innovations. Model measures efficiency and productivity of resources (Zigan Zeglat, 2010).

In Table 2, a review of scientific papers that have dealt with examining IC impact on business of service company is presented.

166 EKOHOMUKA **∋e**

Table 2: Review of previous studies of IC impact on business of service companies

Authors	Data source	Sample description	Variable	Results
Bontis et. al. (2000)	Questionnaire	107 service and non- service companies in Malesia	Dependent: business performances Independent: human, structural and customer capital	Human and structural capital influence the performances regardless of the type of industry; customer quality has a higher impact on performances in relation to structural capital regardless of the type of industry
Engstrom et. al. (2003)	Questionnaire and financial reports	13 Norwegian hotels within two hotel chains (Radisson SAS and Resorts hotel chain)	Dependent: business performances Independent: human, structural and customer capital	There is a statistically significant relation between components of IC, where the connection is the strongest between human and structural capital; there is an impact of structural capital on hotel performances; hotels with high capital of customers achieve a high rate of room occupancy
Lim & Dallimore (2004)	Questionnaire	36 service companies in Australia	Analized relation between IC indicators (human, corporative, business, functional, customer capital, supplier capital, partner capital, investor capital)	Human, business and customer capital are the most important IC components
Mavridis (2004)	Financial reports available on the website of Japanese Bank association (JBA)	141 bank in Japan (2000-2001)	Analized impact of IC (human) capital and physical capital on banking value-based performances	There is a statistically significant impact of intellectual (human) and physical capital on value-based performances. There is a statistically significant impact of intellectual (human) and physical capital on value-based performances. Knowledge workers give provide greater contribution to better business performances
Peng et. al. (2007)	Questionnaire	30 companies for providing health services in Taiwan	Variables: business performances (operational efficiency, costs control, income and growth, medical quality and productivity) and human, organizational and relational capital	Za menadžere ovih preduzeća od najveće važnosti su ljudski kapital kao element IK i operaciona efikasnost kao pokazatelj poslovanja
Walsh et. al. (2008)	Annual financial reports (PKF Hospitality Reserch Consulting)	538 hotels from 45 USA countries (1998-2001)	Analized relation between investment amount in systemic, human and customer capital and startegic orientation of the hotels (low costs/differentiation) and height of business performances (income before taxes, income per a room rented)	Investment in systemic and customer capital of cost-oriented hotels leads to higher profitability of the hotels Hotels aimed towards differentiation with big investments in IC components (human, systemic and customer capital) will result in high performances
El-Bannany (2008)	Financial reports	60 British banks (1999- 2005)	Dependent: IC performances Independent: banking risks, profitability, investments in IT system, banking efficiency, barriers for entrance and IC investments efficiency	Results point out that standard variable banking risk and profitability are important. Investments in IT system, banking efficiency, raising entrance barriers and IC investments efficiency have a significant effect on IC performances.
Kianto et. al. (2010)	Questionnaire	335 production and service companies that do business in Finland (2008-2009)	Variables: analyzing relations of IC components (human, structural, relational and renewable capital) and IC activity (IC management, IC startegy creation and IC protection) in service and manufacturing companies	Service companies own more human and renewable capital and focus on the creation of IC strategy while manufacturing companies have more developed IC protection
Zeghal & Maaloul (2010)	Financial reports	342 companies that do business in Great Britain (2005) of which 161 are service companies for which there are research conclusions given in this paper	Dependent: OI/S, ROA and M/B Independent: VAIC, HCE, SCE and CEE	In service companies: VAIC has a positive impact on OI/S and ROA; VAIC has a negative impact on M/B ratio; CEE has a negative impact on OI/S and positive on ROA and M/B ratio



Bontis et. al. (2013)	Financial reports	Banks that do business in Serbia (2008-2011)	Dependent: profitability, total assets, ROA, ROE, productivity of employees Independent: HCE, SCE; CEE	Results show that human capital has an impact on productivity of employees, structural capital on total assets and ROE and physical capital on profitability and ROE
Joshi et. al. (2013)	Financial reports	40 financial companies in Australia (commercial, investment banks, insurance companies)	Dependent: ROA Independent: VAIC, CEE, HCE, SCE	Relation between VAIC, HCE and SCE and ROA is not statistically significant. Relation between CEE and ROA is not statistically significant
Bornemann & Wiedenhofer (2014)	12 case studies performed on the example of Austrian educational institutions	Austrian educational institutions (2012-2013)	Application of IC concept to non-material resources as crucial for the quality of education process. The aim is to identify the cause of interdependence between IC ininitiator and generic processes of educational institutions	Pointing out the priority of limited resources and systematic monitoring in IC in public and private educational institutions contributes to economic improvement and better acquisition of startegic goals

Legend: OI/S (Operating Income per Sales); HCE (Human Capital Efficiency); SCE (Structural Capital Efficiency); CEE (Capital Employed Efficiency); ROA (Return on Assets); ROE (Return on Equity); GR (Growth Revenue); EP (Employee Productivity); M/B (Market to Book Ratio); VAIC (Value Added Intelectual Coefficient)

Based on papers presented in Table 2, authors of the four papers et. al. (2000); Lim & Dallimore (2004); Zeghal & Maloul (2010) and Kianto et al. (2010) have studied IC impact on performances of service companies. Some authors have examined the IC impact on companies that deal with one of service activities: hotels – (Engstrom et. al. 2003; Walsh et. al. 2008), financial institutions (Mavridis 2004; El-Bannany 2008; Bontis et. al. 2013; Joshi et. al. 2013); health institutions (Peng et. al. 2007); education institutions (Bornemann & Wiedenhofer 2014). By summarizing the studies presented, the conclusion could be reduced to the fact that IC components (human, structural and relational capital) have an impact on business performances of the observed, service companies and that there is a significant connection between coefficients of IC components Sumiranjem prikazanih istraživanja, zaključak bi se mogao svesti na to da komponente IK (HCE; SCE and VAIC) and financial indicator (ROA) in the paper of the author Joshi et. al. (2013).

The growth of service companies is based on the use of intellectual capital. Efficient use of IC contributes the creation of differentiated and quality services and offers company a possibility to achieve better competing position. Effects of IC activities are expressed through the usage of its components: human, structural and relational capital. Human capital has a dominant role in service companies and includes knowledge, abilities and skills of employees to create quality services, different in relation to competition. Structural capital (databases, softwares, business culture) represent a tool which enables the employees to use knowledge and skills while development of relational capital affects good competing position and image that a company has in its environment. Therefore, differentiation of services and better competing position of service companies can be achieved by owning and good management of intellectual capital, i.e. management of human, structural and relational capital.

Conclusion

Value of the company is not based only on physical and financial, but also on intelectual property. Intellectual capital is something unique that a company owns (Bontis et. al. 1999) and makes up 80% of its market value (Cheng et. al. 2010). IC is built within "company's walls" (Komnenic & Pokrajcic, 2012) and therefore, it is hard to distinguish this type of capital from total company's assets. Authors Kim & Dennis (2014) believe that growth in knowledge-based economy is a main reason of deviation of market value of the company in relation to the accounting value. This difference simultaneously points to the positive impact of IC on business of the company and there are numerous studies regarding this subject.

IC is an important factor of creating value in the companies, whether they are manufacturing, trade or service. It consists of human capital (knowledge, experience and skills of the employees), structural capital (business culture, databases) and relational capital (reputation of the company and relations with external partners). Investing in IC is a secure path to creation of competitive advantage and high business performances of the company.

High value of IC affects the growth of the value of service companies. Possession of IC in service companies and its adequate usage offers the possibility to produce differentiated, quality services that can be copied easily. By creating these services, the growth of profit is provided which leads to the growth of the value of the company.

References

- Anantadjaya, S., Nawangwulan, I., Pramesty, I.A. & Gunawan, G.A. (2015). Measuring customers' intimacy: evidence from indonesian service-based companies. Ekonomika, Vol. 61(2), 11-28.
- Bontis, N. (1998). Intellectual capital: an exploratory study that develops measures and models. Management Decision, 36(2), 63 76.
- Bontis, N. (2001). Assessing knowledge assets: a review of the models used to measure intellectual capital. International Journal of Management Reviews, 3(1), 41-60.
- Bontis, N., Dragonetti, N., Jacobsen, K. & Roos, G. (1999). The knowledge toolbox: A review of the tools available to measure and manage intangible resources. Eropean Management Journal, 17(4), 391-402.
- Bontis, N., Janošević, S. & Dženopoljac, V. (2013). Intellectual capital and the corporate performance of Serbian banks. Actual problems of Economics, 4, 287-299.
- Bontis, N., Keow, W.C. & Richardson, S. (2000). Intellectual capital and business performance in Malaysian industries. Journal of Intellectual Capital, 1(1), 85 100.
- Bornemann, M. & Wiedenhofer, R. (2014). Intellectual capital in education: a value chain perspective. Journal of Intellectual Capital, 15(3), 451 470.
- Brady, M.K., Bourdeau, B.L. & Heskel, J. (2005). The importance of brand cues in intangible service industries: an application to investment services. Journal of Services Marketing, 19(6), 401 410.

ЭЕ ЕКОНОМИКА

- Brooking, A. (1996) Intellectual Capital: Core Asset for the Third Millennium Enterprise, London: Thompson International Business Press
- Carnall, C. (1999) Managing change in organizations,3^{ed} ed., Edinburgh: Pearson Education Limited, England.
- Castro, G.M., Saez, P.L. i López, J.E.N. (2004). The role of corporate reputation in developing relational capital. Journal of Intellectual Capital, 5(4), 575 585.
- Cheng, M.Y., Lin, J., Hsiao, T. & Lin, T.W. (2010). Invested resource, competitive intellectual capital, and corporate performance. Journal of Intellectual Capital, 11(4), 433 450.
- Drucker, P.P. (1993). Managing in Turbulent Times, New York: Harper Business,
- Edvardsson, B. & Olsson, J. (1996). Key Concepts for New Service Development. Service Industries Journal. Apr. 96. 16(2), 140-164.
- Edvinsson, L. & Malone, M. (1997). Intellectual Capital: Realizing your Company's True Value by Finding its Hidden Brainpower, New York:Harper Collins.
- Edvinsson, L. (1997). Develoing intellectual capital at Skandia. Long Range Planning. 30(3), 366-73.
- El-Bannany, M. (2008). A study of determinants of intellectual capital performance in banks: the UK case. Journal of Intellectual Capital, 9(3), 487 498.
- Engstrom, T., Westnes, P. & Westnes, S.F. (2003). Evaluating intellectual capital in the hotel industry. Journal of Intellectual Capital, 4(3), 287 303.
- Fitzgerald, L., Johnston, R., Brignall, S., Silvestro, R. & Voss, C. (1991). Performance Measurement in Service Business, CIMA, UK.
- Gallego, I. & Rodríguez, L. (2005). Situation of intangible assets in Spanish firms: an empirical analysis. Journal of Intellectual Capital, 6(1), 105 126.
- Gebauer, H., Edvardsson, B. & Bjurko, M. (2010). The impact of service orientation in corporate culture on business performance in manufacturing companies. Journal of Service Management, 21(2), 237 259.
- Grosh, D. & Wu A. (2007). Intellectual capital and capital markets: additional evidence. Journal of Intellectual Capital, 8(2), 216 235.
- Ilias, S. & Panagiotis, T. (2010). Investigating the impact of service quality and customer satisfaction on customer loyalty in mobile telephony in Greece. The TQM Journal, 22(3), 330-343.
- Itami, H. (1991) Mobilizing Invisible Assets. Cambridge: Harvard University Press.
- Joshi, M. et. al. (2013). Intellectual capital and financial performance: an evaluation of the Australian financial sector. Journal of Intellectual Capital, 14(2), 264 285.
- Kianto, A., Hurmelinna-Laukkanen, P. Ritala, P. (2010). Intellectual capital in service and product-oriented companies. Journal of Intellectual Capital, 11(3), 305 325.
- Kim, S. H. & Dennis, T. (2014). Intellectual capital vs the book-value of assets. Journal of Intellectual Capital, 15(1), 65 82.
- Komnenic, B. & Pokrajcic, D. (2012). Intellectual capital and corprate performance of MNCs in Serbia. Journal of Intellectual Capital, 13(1), 106-119.

170 ЕКОНОМИКА **Э€**

- Krishnan, B.C. & Hartline, M.D. (2001). Brand equity: is it more important in services?. Journal of Services Marketing, 15(5), 328 342.
- Lev, B. (2001). Intangibles: Management, Measurement and Reporting. Washington:Brookings institution Press, DC.
- Lim, L. & Dallimore, P. (2004). Intellectual capital: management attitudes in service industries. Journal of Intellectual Capital, 5(1), 181 194.
- Lonnqvist, A. (2004). Measurement of intangible success factors: case studies on the design, implementation and use of measures. Doktorska disertacija, Publication 475, Tampere University of Technology, Tampere.
- Lynn, B. (1998). Intellectual capital. CMA Magazine, 72(1), 10. 6p. 1 Color Photograph
- Martelo-Landroguez , S. i Martin-Ruiz , D. (2016). Managing knowledge to create customer service value. Journal of Service Theory and Practice, 26(4).
- Mathieu, V. (2001). Service strategies within the manufacturing sector: benefits, costs and partnership. International Journal of Service Industry Management, 12(5), 451 475.
- Mavridis, D. (2004). The intellectual capital performance of the Japanese banking sector. Journal of Intellectual Capital, 5(1), 92 115.
- MERITUM (2002). Guidelines for Managing and Reporting on Intangibles, Madrid, Spain: Measuring Intangibles to Understand and Improve Innovation Management. Dostupno na: http://www.pnbukh.com/files/pdf_filer/MERITUM_Guidelines.pdf
- Mihailović, B., Cvijanović, D. & Simonović, Z. (2015). Role of business ethics in management of human resources. Ekonomika, Vol. 61(1), 85-96.
- Moeller, S. (2010) "Characteristics of services a new approach uncovers their value", *Journal of Services Marketing*, 24(5): 359 368.
- Nahapiet, J. Ghoshal, S. (1998). Social capital, intellectual capital and the organizational advantage. Academy of Management Review, 23(2), 242-266.
- Namasivayam, K. & Denizci, B. (2006). Human capital in service organizations: identifying value drivers. Journal of Intellectual Capital, 7(3), 381 393.
- Navaratnam, K.K. & Harris, B. (1994). Customer Service in an Australian Quality Award Winning Public Sector Service Industry. International Journal of Public Sector Management, 7(2), 42 49.
- O'Donnell, D. & O'Regan, P. (2000). The structural dimensions of intellectual capital: emerging challenges for management and accounting. Southern African Business Review: Special Issue on Information Technology, 4(2), 14–20.
- Onkvisit, S. & Shaw, J.J. (1989). Service marketing: image, branding, and competition. Business Horizons, 32(January-February), 13-18.
- Organisation for Economic Co-operation and Development OECD (2000). The Service Economy. Business and Industry Policy Forum Series. Dostupno na: http://www.oecd.org/sti/ind/2090561.pdf
- Parasuraman, A., Zeithaml, V. i Berry, L. (1985). A conceptual model of service quality and its implications for future research. Journal of Marketing, 49(Fall), 41-50.

ЭЕЕКОНОМИКА 171

- Peng, T.A., Pike, S. & Roos, G. (2007). Intellectual capital and performance indicators: Taiwanese healthcare sector. Journal of Intellectual Capital, 8(3), 538 556.
- Riahi-Belkaoui, A. (2003). Intellectual capital and firm performance of US multinational firms. Journal of Intellectual Capital, 4(2), 215 226.
- Rodie, A.R. i Martin, C.L. (2001). Competing in the service sector The entrepreneurial challenge. International Journal of Entrepreneurial Behavior & Research, 7(1), 5-21.
- Roos, G. & Roos, J. (1997). Measuring your company's intellectual performance. Long Range Planning, 30(3), 325, 413–426.
- Sandstrom, S., Edvardsson, B. Kristensson, P. i Magnusson, P. (2008). Value in use through service experience. Managing Service Quality: An International Journal, 18(2), 112 126.
- Steenkamp, N. & Kashyap, V. (2010). Importance and contribution of intangible assets: SME managers perceptions. Journal of Intellectual Capital, 11(3), 368 390.
- Stewart, T.A. (1997). Intellectual Capital: The New Wealth of Organisation, London:Nicholas Brealey
- Sveiby, K.E. (1997). The New Organizational Wealth: Managing and Measuring Knowledge-based Assets. San Francisco: Berrett-Koehler.
- Tesng, C.Y. Goo, Y.J. (2005). Intellectual capital and corporate value in an emerging economy: empirical study of Taiwanese manufacturers. R&D Management, 35(2), 187-201.
- Tovstiga, G. & Tulugurova, E. (2007). Intellectual capital practices and performance in Russian enterprises. Journal of Intellectual Capital, 8(4), 695 707.
- Van Buren, M.E. (1999). Making knowledge counts: knowledge management systems and the human element.
- Walsh, K., Enz, C. & Canina, L. (2008). The impact of strategic orientation on intellectual capital investments in customer service firms. Journal of Service Research, 10(4), 300-17.
- Williams, K. C., Hernandez, E. H., Petrosky, A. R., & Page, R. A. (2010). Fine-Tuning Useful E-Commerce Practices. Journal of Technology Research.
- Zeghal, D. & Maaloul, A. (2010). Analysing value added as an indicator of intellectual capital and its consequences on company performance. Journal of Intellectual Capital, 11(1), 39-60.
- Zigan, K. & Zeglat, D. (2010). Intangible resources in performance measurement systems of the hotel industry. Facilities, 28(13/14), 597 610.

172 EКОНОМИКА **ЭС**

Respected reviewers,

I would like thank on selfless contribution you gave in the process of quality improvement of papers published in journal EKONOMIKA.

Editor in Chief,

Prof. Dr Dragoljub Simonovic

Boban Stojanović PhD, Full Professor, University of Nis, Faculty of Economics (Serbia)

Marko Kolaković PhD, Full Professor, University of Zagreb, Faculty of Economics, (Croatia)

Slobodan Cvetanović PhD, Full Professor, University of Nis, Faculty of Economics (Serbia)

Bojan Krstić PhD, Full Professor, University of Nis, Faculty of Economics (Serbia)

Rajmund Mirdala PhD, Full Professor, Technical University of Kosice, Faculty of Economics, (Slovakia)

Evica Delova Jolevska PhD, Full Professor, University American College - Skopje, (FYR Macedonia)

Dragan Momirović PhD, Full Professor, Faculty of Business Economics and Entrepreneurship (BEE), Belgrade (Serbia)

Jadranka Đurović Todorović PhD, Full Professor, University of Nis, Faculty of Economics (Serbia)

Chris Patel PhD, Full Professor, Macquarie University, Sydney, (Australia)

Chi Wei Su PhD, Full Professor, Ocean University of China, Department of Finance, Qingdao, (China)

Mariya M. Pavlova PhD, Full Professor, St. Cyril and St. Methodius University of Veliko Trnovo, Department of "Accounting and Finance" (Bulgaria)

Borivoje Prokopović PhD, Full Professor, Niska poslovna skola, Nis, (Serbia)

Dragoljub Simonović PhD, Full Professor, University of Nis, Faculty of Economics (Serbia)

Snežana Đekić PhD, Full Professor, University of Nis, Faculty of Economics (Serbia)

Drago Cvijanović PhD, Full Professor, University of Kragujevac, Faculty of Hotel Management and Tourism Vrnjacka Banja (Serbia)

Zorica Vasiljević PhD, Full Professor, University of Belgrade, Faculty of Agriculture (Serbia)

Hristivoje Pejčić PhD, Full Professor, University of Pristina, Faculty of Agriculture, Lešak (Serbia)

Slavomir Miletić PhD, Full Professor, University of Pristina, Faculty of Economics (Serbia)

Branislav Mitrović PhD, Full Professor, University of Nis, Faculty of Economics (Serbia)

Liviju Dumitrasku PhD, Full Professor, Petroleum and Gas University, Economic Sciences Faculty, Ploiesti, (Romania)

- Zbigniew Paszek PhD, Full Professor, Andrzej Frycz Modrzewski Krakow University (AFMKU), Krakow, (Pland)
- Andrés Carrión García PhD, Full Professor, Universidad Politécnica de Valencia, Center for Quality and Change Management, (Spain)
- Paulo Cesar Chagas Rodrigues Full Professor, PhD, Instituto Federal de Educação, Ciência e Tecnologia de São Paulo (IFSP), Campus Avaré, (Brazil)
- Petar Veselinović PhD, Full Professor, University of Kragujevac, Faculty of Economics (Serbia)
- Jurij Knjazev PhD, Academician, Russian Academy of Sciences, The Institute for International Economic and political studies, Moscow (Russia)
- Tadija Đukić PhD, Full Professor, University of Nis, Faculty of Economics (Serbia)
- Andrey Ayramov PhD, Full Professor, Russian Academy of Justice, Department of Criminal law, Moscow (Russia)
- Milijanka Ratković PhD, Full Professor, Union University Nikola Tesla, Faculty for Education of Executives, Belgrade (Serbia)
- Nabieva U.N. PhD, Full Professor, Dagestan State University, Faculty of Ecology and Geography, Makhachkala (Russia)
- Ivan Čarota Aleksejevič PhD, Full Professor, Belarusian State University, Faculty of Philology, Minsk (Belarus)
- Konjahin Vladimir Pavlovič PhD, Full Professor, Kuban State University, Faculty of Law, (Russia)
- Minjazeva Tatjana Fedorovna PhD, Full Professor, Peoples' Friendship University of Russia, Moscow, (Russia)
- Joop Vinke PhD, Senior lecturer, Hogeschool Arnhem and Nijmegen, Faculty of Economics and Management (Holland)
- Slavoljub Milovanović PhD, Full Professor, University of Nis, Faculty of Economics (Serbia)
- Zoran Stefanović PhD, Associate Professor, University of Nis, Faculty of Economics (Serbia)
- Igor Mladenović PhD, Associate Professor, University of Nis, Faculty of Economics (Serbia)
- Danijela Despotović PhD, Associate Professor, University of Kragujevac, Faculty of Economics (Serbia)
- Snežana Radukić PhD, Associate Professor, University of Nis, Faculty of Economics (Serbia)
- Marina Đorđević PhD, Associate Professor, University of Nis, Faculty of Economics (Serbia)
- Sonja Jovanović PhD, Associate Professor, University of Nis, Faculty of Economics (Serbia)
- Adrian Stancu, Associate Professor, Ph.D. Petroleum-Gas University of Ploiesti, Faculty of Economic Sciences (Romania)
- Sanjin Ivanović PhD, Associate Professor, University of Belgrade, Faculty of Agriculture (Serbia)
- Radmila Micić PhD, Associate Professor, University of Pristina, Faculty of Economics (Serbia)

198 ЕКОНОМИКА **Э€**

- Vladimir Senić PhD, Associate Professor, University of Kragujevac, Faculty of Hotel Management and Tourism Vrnjacka Banja (Serbia)
- Zoran Stefanović PhD, Associate Professor, University of Nis, Faculty of Economics (Serbia)
- Snežana Živković PhD, Associate Professor, University of Nis, Faculty of Occupational Safety (Serbia)
- Mirijana Knežević PhD, Associate Professor, University of Kragujevac, Faculty of Economics (Serbia)
- Nada Vignjević Đorđević PhD, Associate Professor, State University of Novi Pazar (Serbia)
- Sofija Lihova PhD, Associate Professor, National Aviation University, Law Institute, Department of Criminal Law and Process, Kiev (Ukraine)
- Dejan Spasić PhD, Associate Professor, University of Nis, Faculty of Economics (Serbia)
- Tadija Đukić PhD, Associate Professor, University of Nis, Faculty of Economics (Serbia)
- Ognjen Radović PhD, Associate Professor, University of Nis, Faculty of Economics (Serbia)
- Tomislav Brzaković PhD, Associate Professor, Fakultet za primenjeni menadžment, ekonomiju i finansije, Belgrade (Serbia)
- Ivan Piljan PhD, Associate Professor, Faculty of Business Economics and Entrepreneurship, Belgrade (Serbia)
- Aleksandar Đurić PhD, Ministry of Justice and Public Administration, Belgrade (Serbia)
- Jonel Subić PhD, Senior Scientific Advisor, Institute of Agricultural Economics, Belgrade (Serbia)
- Branko Mihailović PhD, Senior Scientific Advisor, Institute of Agricultural Economics, Belgrade (Serbia)
- Zoran Simonović PhD, Research Associate, Institute of Agricultural Economics, Belgrade (Serbia)
- Vesna Paraušić PhD, Research Associate, Institute of Agricultural Economics, Belgrade (Serbia)
- Nataša Kljajić PhD, Research Associate, Institute of Agricultural Economics, Belgrade (Serbia)
- Ivan Djuric PhD, Leibniz Institute of Agricultural Development in Transition Economies (IAMO), Halle, (Germany)
- Jovan Zubović PhD, Research Associate, Institute of Economic Sciences, Belgrade (Serbia)
- Darko Vuković PhD, Research Associate, SANU, Geographical Institute "Jovan Cvijić", **Belgrade** (Serbia)
- Vladimir Nikitović PhD, Research Associate, Institute of Social Sciences, Belgrade (Serbia)
- Anton Puškarić PhD, Research Associate, Institute of Agricultural Economics, Belgrade (Serbia)

ЭЕ ЕКОНОМИКА

- Svetlana Sokolov Mladenović PhD, Docent, University of Nis, Faculty of Economics (Serbia)
- Svetlana Roljević PhD, Research Associate, Institute of Agricultural Economics, Belgrade (Serbia)
- Tanja Stanišić PhD, Docent, University of Kragujevac, Faculty of Hotel Management and Tourism Vrnjacka Banja (Serbia)
- Sandra Stojadinović Jovanović PhD, Docent, University of Belgrade, Faculty of Economics (Serbia)
- Aleksandar Kostić PhD, Docent, University of Pristina, Faculty of Economics (Serbia)
- Maja Ivanović Đukić PhD, Docent, University of Nis, Faculty of Economics (Serbia)
- Vesna Janković-Milić PhD, Docent, University of Nis, Faculty of Economics (Serbia)
- Svetislav Stanković PhD, Docent, Military Academy Belgrade (Serbia)
- Nebojša Pavlović PhD, Docent, University of Kragujevac, Faculty of Hotel Management and Tourism Vrnjacka Banja (Serbia)
- Radenko Marić PhD, Docent, University of Novi Sad, Faculty of Economics, Subotica (Serbia)
- Dragan Ilić PhD, Docent, University Business Academy in Novi Sad, FIMEK, Novi Sad (Serbia)
- Marko Janković PhD, Docent, Faculty of Business Economics and Entrepreneurship (BEE), Belgrade (Serbia)
- Gordana Mrdak PhD, High School Applied Professional Studies, Vranje (Serbia)
- Vladimir Radivojević, PhD, Ministry of Defense of the Republic of Serbia, Serbian Armed Forces, Niš (Serbia)
- Milos Krstić, PhD, University of Nis, Faculty of Sciences and Mathematics (Serbia)

200 ЕКОНОМИКА ЭЕ

Ретракција рада: "Analysis of global integration processes: South Africa, Asia-Pacific region and Russia" (2015, Vol. 61, бр. 1, стр. 55-71).

Поштовани читаоии,

Обавештавамо Вас да је рад "Analysis of global integration processes: South Africa, Asia-Pacific region and Russia" Наталије Кузнетсове и Наталије Александровне Воробјеве, објављен у часопису Економика (број 1, волумен 61, 2015, стр. 55-71) повучен. Стога, овај рад више није у бази часописа Економика. Рад представља ауто плагијат. Наиме, 20 процената рада је претходно објављен 2014. године у часопису Life Science Journal, под називом "Changes and points of attraction for migration flows in the XXI century" (11 (8C), стр. 380-384). Раније објављени рад није уопште наведен у библиографији рада који је 2015. године објављен у часопису Економика. То је искључиви пропуст ауторки. Овај пропуст је у супротности са издавачким стандардима, па се Редакција часописа Економика одлучила за опозив рада.

Редакција часописа Економика

15. Септембар 2016

Retraction of paper: "Analysis of global integration processes: South Africa, Asia-Pacific region and Russia" (2015, вол. 61, бр. 1, стр. 55-71).

Dear Readers.

We are informing you that the paper titled "Analysis of global integration processes: in South Africa, the Asia-Pacific region and Russia" by Natalia Kuznetsova and Natalia Alexandrovna Vorobjova, published in the journal *Ekonomika - Journal of Economic Theory and Practice and Social Issues* (number 1, volume 61, 2015, pp. 55-71) is withdrawn. Therefore, this paper is no longer in the database of the journal *Ekonomika*. This paper presents an auto plagiarism. In fact, 20 percent of the work was previously published in 2014 in the journal *Life Science Journal*, under the title "Changes and points of attraction for migration flows in the XXI century" (11 (8S), pp. 380-384). Previously published paper was not even listed in the bibliography of the paper published in 2015 in the journal *Ekonomika*. It is the exclusive omission of the authors. This omission is inconsistent with publishing standards, and the Editorial Board of the journal *Ekonomika* decided to recall the work.

Editorial board of the Ekonomika

September 15, 2016.

EKOHOMUKA 189

ШАБЛОН / ТЕМПЛАТЕ ЗА ПИСАЊЕ РАДОВА

Име аутора (Font size 10 Normal) Times New Roman (SR-Cyrilic) Факултет или институција и Град (Font size 10 Italic)

НАСЛОВ СРПСКИ (Font size 11 Bold)

Апстракт

Текст апстракта на српском ...

Кључне речи:

NASLOV ENGLESKI ili neki drugi jezik (Font size 11 Bold)

Abstract

Tekst apstrakta na engleskom ili na nekom drugom jeziku...

Key words:

НАСЛОВ (Font size 11 Bold)

Текст (Font size 10)......

Литература

1. Списиак литературе

Veličina strane 170mm x 240mm Margine: Top 30mm Bottom 20mm Left 22mm Right 22mm

CIP – Каталогизација у публикацији Народна библиотека Србије, Београд

338 (497,1)

ЕКОНОМИКА : Часопис за економску теорију и праксу и друштвена питања / главни уредник Драгољуб Симоновић. – Год. LXII. бр. 3 (2016) - Ниш (Максима Горког 5/36) : Друштво економиста ЕКОНОМИКА, 2016 – (Ниш : Графика Галеб). – 186 стр. : 24 ст.

Часопис излази четири пута годишње ISSN 0350–137X = Економика COBISS.SR-ID 26903



