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EDITORIAL

After the double-blind peer review process and the improvement of the received manuscripts, Issue 1 Volume 21 Year 2019 of the *Economic Horizons* contains, apart from the Editorial, six contributions: four original scientific and two review papers.

Based on researching the differences in the amount of the benefits which individual persons are entitled to once they are retired according to the old pension scheme, which is based on current funding (pay-as-you-go), and according to the new pension scheme, which is funded by payments of contributions into the pension fund (contributory pension scheme), *Mathew Olasehinde Fashagba* and *Emmanuel Olaniyi Dunmade* establish the fact that, according to the new pension system, a smaller amount of pensions is paid in relation to the pensions paid according to the old pension scheme, in spite of the fact that payments made by employees into the pension fund in both pension systems during the same number of the years of service are approximately similar. Pursuant to the stated conclusion, the coauthors point to the need for a more efficient management of the investments made in the pension fund so as to achieve their adequate return in order to bridge the gap in the retirement benefits that is present between the two pension systems.

A high tax burden, which negatively reflects on the business operations of all economic entities in Nigeria, is the reason for the implementation of the corporate tax planning strategy for the purpose of identifying a possibility of reducing tax payments to a minimum so as to mitigate the negative effect of the tax on income and financial business operations. Pursuant to the said, *Temitope Olamide Fagbemi*, *Taiwo Azeez Olaniyi* and *Ayobolawole Adewale Ogundipe* do research into the implications of corporate tax planning for the financial performances of the Nigerian systemically important banks in the period from 2006 to 2016. Based on the research results, they point to the fact that an increase in the effective tax rate has a negative influence on the financial performance of the systemically important banks. Pursuant to that, the recommend that Nigeria's tax authorities should adjust the corporate tax rates so as to reduce their negative implications for business results.

Starting from the attitude that accession to the European Union (EU) is a gradual developmental process of the candidate countries, *Emilija Beker Pucar* and *Olgica Glavaski* consider the monetary stages through which the EU emerging countries (developing, rising countries) are going through. By researching the monetary policy frameworks, they identify the main challenges the monetary authorities are faced with in different phases of monetary convergence, as well as the endeavors to select the adequate combination of the foreign-exchange rate regime and the monetary policy. They highlight the fact that, by simultaneously keeping monetary autonomy, flexible foreign-exchange regimes provide more room for maneuvering for the monetary authorities, absorbing external shocks in crisis conditions, whereas the rigid regimes of the foreign-exchange rate are more susceptible to macroeconomic overheating with consequent more severe internal and external adaptations in the post-crisis period. Pursuant to that, in the EU accession process, we should bear in mind the economic sacrifice of monetary integration and the necessity of preparedness for functioning within a rigid monetary framework.

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Given the fact that the traditional manner of communication among and between consumers has been changed under the influence of information and communications technologies, *Milan Kocic* and *Katarina Radakovic* point to the fact that verbal communication, as one of the important marketing instruments, has assumed a new dimension thanks to the digital forms of communication. For that purpose, the coauthors do research into the relevant aspects of the influence of electronic interpersonal communication on consumer behavior, testing the attitudes on consumers' trust in the field of the wellness offer. The results obtained in this research study may be useful not only for the creators of the wellness content, and pursuant to that for stimulating the development of the tourism sector, but also for the users of the mentioned services since consumer trust enhances with a faster spreading of information and comments, which is the assumption of successful market positioning.

Relying on the sustainable development concept as a complex process which implies bringing into tune the economic, social, and ecological development goals together with adequate institutional support, *Lela Ristic*, *Nikola Boskovic* and *Danijela Despotovic* conduct a research study on the key aspects of the sustainable integral development of agriculture and tourism in the Republic of Serbia (RoS). Based on the results of the research study, they indicate that, despite the fact that agriculture and tourism in the RoS are characterized by the relevant richness of natural and cultural-historical resources, the available agricultural and tourism potentials are insufficiently utilized. Pursuant to that, bearing in mind the complementarity of agriculture and tourism, they indicate the necessity of the institutional stimulation of more intensive connectedness of agriculture and tourism through the concept of integral sustainable development, by which it is possible to achieve favorable economic effects in the development of the agricultural-food sector, tourism, and the rural economy as a whole.

Pursuant to the generally accepted attitude that quality is the basis of the competitiveness of an enterprise, *Milica Ristic*, *Radenko Milojevic* and *Marija Radosavljevic* consider a lack of quality, which has a negative impact on buyer loyalty and their dissatisfaction, which is accompanied by the growth of the costs of delivered products. Given the fact that there is no relevant mechanism for managing the costs conditioned by a lack of quality, the coauthors endeavor to research the mutual interconnectedness between long-term provisions and the costs of external failures. They started from the attitude that long-term provisions may be a relevant controlling instrument in managing external failure costs. By analyzing the first one hundred most successful enterprises, they have confirmed the starting hypothesis that long-term provisions may be a useful controlling mechanism when speaking about external failure costs, the arguments for which are provided by a positive correlation between long-term provisions and the net profit of the enterprises.

On behalf of the Editorial Board of the Journal, and on my own behalf, I would first of all like to express my gratitude to the authors of the contributions published in this Issue of the Journal. At the same time, we owe special gratitude to the reviewers who have contributed to the raising of the level of the quality of the published papers through their respective constructive and critical comments and suggestions given to the authors of the submitted contributions.

Editor-in-Chief
Vlastimir Lekovic

Vlastimir Lekovic is a full professor at the Faculty of Economics, University of Kragujevac. He earned his Ph.D. degree at the Faculty of Economics, University of Kragujevac, in the scientific field of general economics and economic development. He teaches the teaching disciplines of Comparative Economic Systems, Economics of the Public Sector, Institutional Economics, Methodology of Scientific Research, and Market Regulation Policies, in the basic, graduate and doctoral academic studies. The key fields of his scientific-research interest are the economic system, the economic policy and institutional economics.

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EVALUATING THE BENEFITS OF THE OLD AND THE NEW PENSION SCHEMES IN NIGERIA

Mathew Olasehinde Fashagba[1]* and Emmanuel Olaniyi Dunmade[2]

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This study is aimed at examining the difference between the retirement benefit of the old, pay-as-you-go pension scheme, and the new, contributory pension scheme (CPS). The data used in the study were obtained indirectly from secondary sources. In the study, the Analysis of Variance (ANOVA) and the Pearson Correlation methods are employed, aided by the SPSS for the purpose of data analysis. The study finds that the financial value of the retirement benefit of the old pension scheme is significantly higher than that of the new pension scheme. The study also finds that the benefits of the two pension schemes significantly follow the same trend. The study concludes that the new pension scheme pays out a lesser amount of the retirement benefit than the old. The study provides the recommendations for the efficient management of the investments in the pension fund so as to achieve a sufficient return in order to bridge the gap with respect to the retirement benefit between the two pension plans.

Keywords: retirement benefit, defined benefit, defined contribution, retirement income

JEL Classification: M21, G20

INTRODUCTION

A pension is the retirement benefit offered to elderly employees by the employer or by the organization that they worked for after the former was disengaged from the service by the latter, on certain merits. The major goal of a pension is to ensure that the retiree's source of living does not end at retirement. N. Barr and P. Diamond (2006) are of the opinion that the purpose of a pension is to allow consumption to continue beyond one's work-life. A pension provides one with the means for continuous income, as well as consumption, during retirement.

The pension system was introduced in Nigeria by the former colonial master in 1951, for European workers and with a retrospective effect back in January 1946 (Odia & Okoye, 2012). The act was referred to as the pension ordinance and became the origin of a modern pension in Nigeria and the first pension law in the history of the country.

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From the inception of the pension in Nigeria, the Pay-As-You-Go (PAYG) scheme, a form of the defined benefit (DB), was adopted as the common pension practiced throughout the nations of the world and more specifically operated by the British, her colonial Master, at that time, and substantively practiced till June 2004. Although the PAYG pension scheme had remained the official pension practice in the country since 1951 only with a minor adjustment as was considered to be appropriate from time to time, it was not until 2004 that the first major reform of the pension system was being undertaken in Nigeria, thereby leading to a change in the pension system from the pay-as-you-go to the contributory pension scheme, a form of the defined contribution (DC) pension scheme.

Like many other countries, including Chile and Taiwan, Nigeria followed the form of the defined contribution pension scheme model recommended by the World Bank and adopted the contributory pension scheme following her major pension reform generally referred to as the 2004 Pension Reform Act. According to J. O. Odia and A. E. Okoye (2012), many countries opted for the various forms of the contributory pension scheme. C. W. Peifer (2015) noted that there had been a steady decline in the employer sponsor pension plan over several decades. M. I. Orenstein (2008) identified some of the countries that had changed their pension systems from the defined benefit pension scheme to the defined contribution pension, including Chile in 1981, Bolivia in 1997, Mexico in 1997, Nigeria in 2004, and so on. The arguments for replacing the old pension scheme with the new pension scheme across the nations of the world are, among other things, also inclusive of, but not limited to a reduction in fertility, the improvement of the healthcare system and a subsequent reduction in the labor force. The consequence of the improvement of the health facility reflected in an increase in the lifespan of the old retiree (Meng & Pfan, 2010; Lachman, 2013). The implication of the expansion of the retiree's lifespan is that more funds will be required so as to be able to pay an increased number of the old due to the improved health facility. At the same time, fewer workers are available for production for the sustenance of both the current employees themselves and the old, retirees, who did not provide for their retirement. This was captured in M. O. Fashagba (2018), stating that the defined benefit scheme requires a growing working population to succeed.

Thus, the need for the replacement of the pay-as-you-go with the contributory pension scheme became necessary. In addition to the foregoing universal factors, there are local problems peculiar to the defined benefit pension in Nigeria. According to J. A. Oladipo and M. O. Fashagba (2012), J. O. Odia and A. E. Okoye (2012), these problems of the old pension scheme in Nigeria include the nonpayment or a delay in the payment of the pension benefit as and when due, a huge pension debt of about N2.06 billion as of December 2005, the rigorous processes involved prior to the pension payment, and a poor record of pensioners and so forth. T. A. Fapohunda (2013) summarized the problems of the old pension scheme in Nigeria as inadequate funding, an inadequate subvention and grant, and poor documentation.

The replacement of the old scheme as at the time was evidently justified since it was no longer capable of meeting the goal of the pension scheme, which is to provide regular income to the retiree as and when due from the time of retirement. However, a worthy replacement should be expected to answer the many questions the old scheme was no longer able to give answers to. Transition from the old pension scheme to the new contributory pension scheme in Nigeria in 2004, with about fourteen years of the implementation of the new scheme, is justifiably due for evaluation. The subject matter of this study is to measure and compare the financial value of the retirement benefit of the old pension scheme and that of the new in Nigeria.

The main objective of the study is to evaluate the difference in the retirement benefit between the new pension scheme and the old pension scheme in Nigeria. The specific objectives are to determine if the new pension scheme provides a better retirement benefit than the old pension scheme did in Nigeria, and also to determine if the benefits of the new scheme and the old pension benefit follow the same trends.

The hypotheses of the study are stated in the null form as follows:

H1: The retirement benefit of the Contributory Pension Scheme is not significantly different from the retirement benefit under the defined benefit plan in Nigeria.

H2: There is no significant difference in the pension benefit trend between the defined pension benefit scheme and the contributory pension scheme in Nigeria.

The first and the second hypotheses of the study are analyzed by applying the ANOVA and Pearson Correlation methods, respectively. The two tests of the hypotheses are performed at a 95% confidence level.

The study is structured into five sections. This, first section is the introduction to the study. In the next section, the relevant literature is reviewed. The third section presents a discussion over the methodology applied in the study. The data analysis and the discussion of the findings are contained in the fourth section. The final section is the conclusion of the study.

LITERATURE REVIEW

This section of the study consists of a literature review. It is important to note that, while there are abundant studies on pension funds investment, investment return, etc. (Munnell, Aubry & Crawford, 2015), to the authors' best knowledge there is no existing work on the comparison of the retirement benefit between the pay-as-you-go and the contributory pension schemes; hence, it is difficult to include empirical issues in this section.

Importance of Pension

The roles of a pension will be classified in the study into two classes, namely the primary role, arising from the main objective of insurance, on the one hand, and the secondary roles that arise from the functions created by the existent pension.

The primary role of a pension is the provision of retirement income. A pension provides income for the old, who is unable to work again (Kibet & Simiyu, 2016). A pension serves as a medium for saving towards future income when the employee's normal life can no longer be sustained.

The secondary roles of a pension are derived from the pension funds created by saving towards a pension payment. The roles include, among other things, financial intermediation and economic development. Several studies on the relationship between economic growth and pension funds have shown that pension funds have a positive impact on economic growth (Akowe, Ocheni & Daniel, 2015; Farayibi, 2016).

Pension funds reduce the cost of capital (Davis, 2015). Through pension savings, additional funds are made available to the traditional mediums of institutional saving. By applying the microeconomic theory of the price mechanism, an increase in supply forces down the price. Hence, the cost of capital reduces as more funds are created through pension savings.

Similarly, O. I. Tirimba (2013) observes that pension funds provide less expensive funds for diversification. The existence of pension funds does not only make funds available for investment, but such funds become more affordable and encourage the diversification of the economy.

Finally, pension funds affect economic growth through the provision of additional funds for financing economic activities and stimulate growth. A positive relationship between pension funds and economic growth has been shown in different empirical studies (Edogbanya, 2013; Akowe *et al*, 2015). Therefore, a pension plays important roles both for individual retirees and for the economy as a whole.

Retirement Benefit

The term "retirement" is the official disengagement of an employee from the service of an employer. One's age is the major factor taken into consideration when deciding on retiring one from one's job. Retirement means giving up one's job (Eme & Sam, 2011). At

a certain age, the employee's physical strength reaches the point of diminishing return, whereby the productive ability is expected to decline, and the retention of the employee in the workplace by the employer becomes no longer profitable. The reasonable thing to do for such an employee at the point where his/her service is no longer profitable is to let such an employee go. The term for the disengagement of an employee from a job after the statutory years of service is known as retirement.

M. Ali (2014) defined retirement as the disengagement of an employee from the regular job.

The retirement benefit is the benefit that the employee still continues to enjoy from the former employer on the merit of his/her having served the employer with his/her strength. Therefore, the retirement benefit is the payment that the employee receives from the employer at retirement (Barbier, 2007). It is the continuation of the regular financial flow from the employer to the employee beyond retirement. The retirement benefit is broadly classified into two major types, namely: gratuity and pension.

Pension

According to R. W. Humphrey (1995), the origin of the official pension plan was traced back to 1875 with the American Express Company. The company provided a benefit for its employees at one-half of the last ten years of the annual pay for the employees at retirement. However, it was not until about 30 years later that a modern pension found its way to Britain, with the Old Age Pension Act of 1905 (OECD, 2008).

A pension is a retirement benefit, unlike gratuity, that provides regular income for the retiree from the time of retirement. Traditionally, a pension has been used as a device to provide sustenance for the old and disengaged employee, who may not be able to work again because of his/her old age. The pension concept has been diversely defined by different authors in different studies. For instance, J. O. Odia and A. E. Okoye (2012) saw a pension as the amount paid by the government or a company to an employee after his/her having been working for some specific period of time, who is considered to be too old or ill to work or has reached the statutory age of retirement.

T. A. Fapohunda (2013) viewed a pension as a system designed to provide the employee of an organization with a means of securing at retirement a standard of living reasonably, consistent with that enjoyed while in service. These definitions show that a pension has to do with one's age. A pension is a payment to retirees, usually at their old age.

M. O. Fashagba (2018) defined a pension as a post retirement benefit to an old employee after his/her disengagement from active service. Similarly, the Nigerian State Pension Reform Law (2015) explained that a pension is a deferred salary paid during a worker's retirement. In other words, a pension is an extension of a salary to the old when the employee is no longer in service because of his/her age or due to the death of the employee's spouse.

C. J. Nwanegbo (2007) held that a pension is a monthly payment to the old, retired, widowed and disabled.

A. Neil (1977) defined a pension as a retirement provided by the employer to the employee on the condition of retirement, age and ill health. This definition also implies that a pension payment is conditional upon old age, ill health or death.

Depending on the form of the pension plan, the retirement benefit either in the form of a gratuity or a pension depends on the years of service. For instance, the 1992 Nigerian Pension Law requires five (5) years of service to qualify for a gratuity and ten (10) years of service for a pension (Ali, 2014).

There are two broad pension plans for pension administration. They are the defined benefit pension plan and the defined contribution pension plan. The two are briefly reviewed as follows:

Defined Benefit Pension Plan (DB)

Conventionally, the pension benefit has been paid with the defined benefit (DB) pension plan. The defined benefit pays the retiree a monthly pension from retirement to the moment of death by using the

number of the years of service and the salary (Curtin, 2009). In addition, C. W. Peifer (2015) opined that the present value of the future pension payment of an employee could be estimated on the four assumptions that include the number of the years of service, the salary, the employee's retirement lifespan and a pension investment gain (where the investment of a pension asset exists). In the Defined Benefit Plan, the sponsoring firm bears the risk of the pension funding, as well as that of the management of the investment. According to J. Broadbent, M. Palumbo and E. Woodman (2006), the basic features of the defined plan include the following:

- the plan promises the employee a monthly pension payment from the date of his/her retirement to the date of his/her death or even still to the date of the death of the employee's spouse;
- the plan usually promises that the formula for calculating the amount of a monthly pension to be paid to the employee shall be that including the years of service with the sponsoring firm as the basis of the computation; hence, the amount of the pension can be predetermined in advance;
- the pension is earned as per each year of service; the percentage of the earning of each year of service with the sponsoring firm is what determines the amount of the monthly pension the employee is entitled to from the date of retirement.

Workers mobility is discouraged in order to avoid a loss of an accrual pension with a change in employment, thus enhancing labor stability.

Defined Contribution Pension Plan (DC)

The Defined Contribution Pension Plan has significantly grown since it appeared for the first time (Curtin, 2009). The plan does not apply any formula for the amount of a monthly pension payment, but rather uses the accumulated fund in the employee's retirement savings account (RSA) at the time of retirement. The employer and/or the employee contribute a percentage of the employee's monthly emolument to the employee's retirement benefit fund. Also, under the defined contribution pension plan, the employee bears more of the risk associated with the pension fund (Broadbent *et al*, 2006). Unlike the defined benefit pension plan, the risk of the pension fund and the management of investments in it are shifted to the employee.

There has been a tremendous shift from the defined benefit pension plan to the defined contribution pension plan in the last few decades. For example, H. Blommestein, P. Janssen, N. Kortleve and J. Yermo (2009) observed that employers were increasingly turning to the defined contribution where the employee bore the entire income risk. Also, J. Poterba, J. Rauh, S. Venti and D. Wise (2007) noted that the retirement arrangements of the private sector in the United States that were predominantly the defined benefit had shifted to the defined contribution in the previous two decades, leaving only the public in the defined benefit pension plan. The features of the defined contribution pension plan include the following:

- the defined contribution pension plan provides for a personal individual employee retirement savings account to the employee;
- deriving from the first point mentioned above, the defined contribution pension plan allows room for workers mobility as the fear of an accrual loss for the years of service put into a job is completely eliminated;
- the defined contribution pension plan does not provide for the knowledge of the amount of a monthly pension in advance.

RESEARCH METHODOLOGY

The objective of this study is to determine the effect of the change in the pension scheme from the defined benefit plan to the defined contribution plan on the retirement benefit in Nigeria. The research data were obtained from secondary sources. The use of the secondary data is justified as the primary data cannot be obtained for the purpose of the study.

The secondary data available and collected for conducting the study were not in the form of the data ready for the purpose of the analysis carried out in this study, for which reason the data were further processed into the form allowing their use in the analysis conducted in this study. The independent variable in the study is the pension benefit for the contributory pension scheme in Nigeria. It was derived by applying the accumulated value function at a 5% interest rate for 18% of the employee's emolument for the period of service of 5 to 35 years. The dependent variable is the retirement benefit from the defined benefit in Nigeria. The present value of the retirement benefit for all the years of retirement (assuming that pension payments continue for 30 years) at 5% by using the defined benefit plan provided in the 1992 Pension Law in Nigeria. The data analysis methods applied in this study are the Analysis of Variance (ANOVA) and the Pearson Correlation methods, aided by the SPSS version. The ANOVA method was used in order to analyze the first hypothesis, whereas the Pearson Correlation method was used in order to test the second hypothesis. The use of the concerned methods is justified for the reason of their suitability for the nature of the data analyzed in the study. Also, ANOVA is an efficient method for the comparison of the means of different samples.

DATA PRESENTATION AND ANALYSIS

The data used in the study are the percentage of the final salary used for a gratuity and pension in the 1992 Pension Law in Nigeria and the percentage of the employee's emoluments jointly contributed by the employer and the employee to the employee retirement savings account, as is envisaged by the 2004 Pension Reform Act in Federal Republic of Nigeria (2004; 2014). The final salary percentage of the retirement benefit is presented in Table 1.

Table 1 The retirement benefit percentages based on the years of service

Years of Qualifying Service	Gratuity as the percentage of the final emolument	Pension as the percentage of the final total emolument
5	100	-
6	108	-
7	116	-
8	124	-
9	132	-
10	100	30
11	108	32
12	116	34
13	124	36
14	132	38
15	140	40
16	148	42
17	156	44
18	164	46
19	172	48
20	180	50
21	188	52
22	196	54
23	204	56
24	212	58
25	220	60
26	228	62
27	236	64
28	244	66
29	252	68
30	260	70
31	268	72
32	276	74
33	284	76
34	292	78
35	300	80

Source: Ali, 2014

The retirement benefit under the defined benefit plan which consists of the gratuity and the pension in Nigeria can be predetermined by the percentage of the employee's final salary. Given the percentage of any employee, it is possible to know the amount of

both the gratuity and the pension that the employee will be entitled to based on his/her final salary and the years of service the employee had put into the sponsoring firm, while the retirement benefit under the contributory pension scheme consists of the accumulation of all contributions into the employee's retirement savings account for all the years of service at the prevailing interest rate. The Pension Reform Act in Federal Republic of Nigeria (2004) provides that the total monthly contribution to the employee's retirement savings account is 15% of the employee's emolument. However, the Pension Reform Act in Federal Republic of Nigeria (2014) reviewed the percentage upwards to 18%, which is the percentage adopted in this study.

Thus, the current value for the employee's total retirement benefit fund at the time of retirement for the employee who earns one naira (₦1) monthly for the period of 5 to 35 years of service is computed at 5% and is presented in Table 2. The accumulated formula allows the retirement savings account to be computed as follows:

Monthly salary = ₦1

Annual salary = ₦1 × 12 = ₦12

Total annual pension contribution = ₦12 × 18% = ₦2.16

Accumulated pension contribution at the end of the n years of service

$$= ₦2.16\ \frac{(1+0.05)^n - 1}{0.05}$$

where $5 \leq n \leq 35$

On the other hand, the defined benefit provides for both the gratuity and the pension. The sum of the gratuity and the present value of all future pensions give the equivalent of the retirement benefit at the time of retirement according to the contributory pension scheme. This can be computed for the different n years (5 to 35) of service, with the percentages accounted for in Table 1. The 30-year retirement benefit for the defined benefit in Nigeria for the employee with the final salary amounting to one naira for the period (5 to 35 years) of service shown in Table 1 is computed at the same 5% interest rate as follows:

$$\text{Retirement benefit} = G + P\left(\frac{1 - v^n}{i}\right)$$

where

G = Gratuity (the percentage of the final salary)

P = Annual pension (the percentage of the pension on the final annual salary)

v = Present value (1/(1+0.05))

i = Interest rate (0.05)

The current value for the retirement benefit for both the DBP and the CPS is presented in Table 2.

Table 2 presents the current value of the employee's retirement benefit at the time of the retirement of the employee who earns one naira per month and ₦12 per annum, computed at a 5% interest rate. The 1st column shows the years of service, the 2nd to the 5th columns demonstrate the retirement benefit for the defined benefit plan in Nigeria, and the 6th and the 7th columns show the retirement benefit for the contributory pension scheme. The gratuity for each year of service is presented in the 2nd column. The annual pension is presented in the 3rd column. The present value of the 30-year annual pension is presented in the 4th column, and the 5th column shows the addition of the gratuity in the 2nd column and the present value of the annual pension in the 5th column.

The Test of the Hypotheses

The two hypotheses stated in the study are evaluated in this section. The analysis of the hypotheses by applying the appropriate methods of analysis is presented below.

The method of the analysis used to test the study is the Analysis of Variance (ANOVA). The result of the analysis is given in Table 3 and Table 4.

Table 2 The computed current value for the retirement benefit for 5 to 35 years of service for both the DBP and the CPS in Nigeria for the monthly salary of ₦1

	Current Benefit Value for Defined Benefit Scheme				Current Benefit Value for Contributory Pension Scheme	
Years (n)	Gratuity	Annual pension	Current value for a 30-year pension	Total current value for the retirement benefit (An)	Annual contribution (18% of 12)	Current Value for all contributions at retirement (Sn)
5	12	-	-	12	2.16	11.94
6	12.96	-	-	12.96	2.16	14.69
7	13.92	-	-	13.92	2.16	17.99
8	14.88	-	-	14.88	2.16	20.63
9	15.84	-	-	15.84	2.16	23.82
10	12	3.60	55.34	67.34	2.16	27.17
11	12.96	3.84	59.63	71.99	2.16	30.67
12	13.92	4.08	62.72	76.64	2.16	34.38
13	14.88	4.32	66.41	81.29	2.16	38.26
14	15.84	4.56	70.10	85.94	2.16	42.33
15	16.8	4.80	73.79	90.59	2.16	46.6
16	17.76	5.04	77.47	95.23	2.16	51.1
17	18.72	5.28	81.16	99.88	2.16	55.82
18	19.68	5.52	84.85	104.53	2.16	60.77
19	20.64	5.76	88.54	109.18	2.16	65.96
20	21.6	6.00	92.23	113.83	2.16	71.42
21	22.56	6.24	95.92	118.48	2.16	77.15
22	23.52	6.48	99.61	123.13	2.16	83.17
23	24.48	6.72	103.30	127.78	2.16	89.49
24	25.44	6.96	106.99	132.43	2.16	96.12
25	26.4	7.20	110.68	137.09	2.16	103.09
26	27.36	7.44	114.37	141.73	2.16	110.41
27	27.84	7.68	118.06	146.38	2.16	118.09
28	29.28	7.92	121.75	151.68	2.16	126.15
29	30.24	8.16	125.44	155.68	2.16	134.62
30	31.2	8.40	129.12	160.32	2.16	143.51
31	32.16	8.64	132.81	164.97	2.16	152.84
32	33.12	8.88	136.50	169.62	2.16	162.65
33	34.08	9.12	140.19	174.23	2.16	172.94
34	35.04	9.36	143.88	178.92	2.16	183.74
35	36	9.60	147.57	183.57	2.16	195.09

Source: Authors

Table 3 The model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.931a	.867	.863	19.57921

a. Predictors: (Constant), Defined contribution Retirement benefit current value

Source: Authors

The result of the regression presented in Table 3 shows the value of the R square and the standard error of the analysis to be 0.86 and 195.68, respectively. The ANOVA result is given in Table 4:

Table 4 ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	72724.220	1	72724.220	189.709	.000[b]
	Residual	11117.015	29	383.345		
	Total	83841.235	30			

a. Dependent variable: Defined benefit retirement benefit current value

b. Predictors: (Constant), defined contribution retirement benefit current value

Source: Authors

The result of the ANOVA method applied presented in Table 4 shows that the F value is 189.709 and the significant value is 0.000. These results show that there is a significant difference between the two pension plans.

The result of the analysis presented in Table 4 provides the statistical evidence of the significant difference between the two pension plans. The null hypothesis is therefore rejected for the alternative hypothesis. The significant value of the test at 0.000 indicates that there is a significant difference between the two pension plans at the 5% significance level. The implication of the result of the study is that, statistically, the retirement benefit under the old, defined benefit in Nigeria is significantly better than that of the present contributory pension scheme. These results statistically indicate a better retirement benefit value of the defined benefit plan than that of the defined contribution pension plan. This is not in agreement with the rapid change from the defined benefit to the defined contribution pension plan noted in J. Broadbent *et al* (2006), S. E. Curtinn (2009) and H. Blommestein *et al* (2009). This change from the DB pension plans to the DC pension plans is not motivated by the value retirement benefit of the pension benefit plans, but rather depends on the merits of the other features of the plans, such as the transfer of the risk pension income burden by the employer.

The method of analysis used to test the second hypothesis is linear regression analysis. The result of the analysis is presented in Table 5.

Table 5 The Pearson correlation of PAUG and CPS

		DBPS	DCPS
DBPS	Pearson Correlation	1	.931**
	Sig. (2-tailed)		.000
	N	31	31
DCPS	Pearson Correlation	.931**	1
	Sig. (2-tailed)	.000	
	N	31	31

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

Source: Authors

The result of data analysis of the second hypothesis is presented in Table 5. The result produces a piece of empirical evidence that the pension amount for the 31-year retirement benefit for the two pension schemes follows the same trend. Thus, the null hypothesis is rejected according to the carried-out study. With the value of the Pearson correlation coefficient from the test being 0.93, this result is also shown to be significant at the one percent (1%) significance level, with a significant value of 0.000. In other words, the result of the statistical analysis reveals that the two variables significantly follow the same trend.

CONCLUSION

The study evaluated the difference between the retirement benefit of the old pension scheme plan and the new in Nigeria. The data for the study were obtained out of the percentage of the gratuity and the pension for the number of the years of service for the old scheme, such as the percentage of the contribution for the new scheme. The study produced the statistical evidence of a significant difference between the two schemes. Considering the empirical evidence, by making a comparison of the total benefit of the two schemes in Column 5 (the defined pension plan) and in Column 7 (the contributory pension scheme) in the columns in Table 4, the study concludes that the old pension scheme benefit is significantly better than the new scheme in terms of the amount of the pension benefit paid to the retiree. The result showing that the value of the retirement benefit of the old pension scheme is significantly higher than that of the paid pension scheme is the most important result of this study. However, the trend of the retirement benefit for both forms of pension plans for the employee who served for the same number of the years of service is found to be similar.

The major limitation of the study is the fact that the data were indirectly generated given the fact that no direct data were available since the employers of both the private and the public sectors are still gradually changing towards the new scheme. Therefore, a further research study is suggested in the future that will employ direct data since retirees under the new pension scheme are still growing in number in order to be sufficient to provide direct data.

Therefore, the study recommends that efficient management of investments in the pension fund should be put in place so as to be able to achieve sufficient return in order to bridge the gap in the retirement benefit between the pension plans.

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THE CORPORATE TAX PLANNING AND FINANCIAL PERFORMANCE OF SYSTEMICALLY IMPORTANT BANKS IN NIGERIA

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Due to the multiplicity and overburdening of Nigeria's tax system, the economic units in which systemically important banks (SIBs) are included implement the corporate strategies that identify the loophole which minimizes, postpones, or entirely avoids tax payments so as to reduce its negative effect on financial performance. Therefore, this study examined the corporate tax planning and financial performance of systemically important banks in Nigeria. *Ex-post facto* was adopted as the research design in this study, while *Pooled OLS* was used to analyze the data. This study has shown that the effective tax rate has a negative and significant impact on financial performance. Thin capitalization has a positive significant impact on the financial performance of SIBs in Nigeria, whereas capital intensity and the lease option have demonstrated an insignificant impact on the financial performance of SIBs in the country. The study concluded that corporate tax planning affects financial performance depending on the adopted tax planning strategies. Likewise, the study recommended, among other things, that the tax authorities should engage in the tax reforms whereby the corporate tax rate is to be adjusted, and that banks should engage in the activities that can reduce the effective tax rate.

Keywords: capital intensity, effective tax rate, financial performance, systemically important banks, tax planning, thin capitalization

JEL Classification: M410

INTRODUCTION

The existing literature argues that the banking industry is the lifeblood of any economy as banks play a very important role in the economic life of every modern state (Aurangzeb, 2012; Ongore & Kusa, 2013). Due to this germane role of banks, their activities are closely monitored by the government through the Central Bank. In Nigeria in the last two decades, the banking industry has witnessed a lot of reforms ranging from financial liberation in 1999, recapitalization in 2004, the adoption of the risk-focused and rule-based regulatory framework and

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corporate governance principles in 2009 (Akpansung & Gidigbi, 2014), the identification of systemically important banks (SIBs) on March 1, 2015, as a response to the outcome of the G20 leaders' meeting in November 2011 that the Basel Committee on Banking Supervision (BCBS) and the Financial Stability Board (FSB) should develop a framework for Domestic SIBs in addition to the Global Systemically Important Financial Institution (SIFIs) (Central Bank of Nigeria, 2014). At the end of December 2016, this set of the banks accounted for 69.06%, 70.25% and 72.2% of the banking industry's total assets, deposits, and loans, respectively (Central Bank of Nigeria, 2016).

Like other economic units, the SIBs must also fulfill some statutory requirements, one of them being compliance with the extant tax laws through the payment of the tax due. Even though there is often reluctance on the economic units' part with respect to the fulfillment of their tax obligation as a result of multiplicity in the tax structure, which makes effective tax rates far higher than the statutory rate of company income tax (Nwaobia, Kwarbai & Ogundajo, 2016). Due to the legal nature of taxation, however, SIBs and other economic units must comply (Commonwealth Association of Tax Administrators, 2009). In order to outsmart the overburdening system, the loopholes that minimize, postpone or avoid the payment of taxes in entirety are often identified by economic units, more specifically by corporate organizations. These attempts made by economic units can either be made by legal means, often referring to tax planning, or through illegal means, categorized as tax evasion (Murphy, 2004).

Corporate tax planning involves the in-depth understanding and application of relevant shelters and incentives in tax enactments by economic units, which includes the incentives given in recognition of the pioneer status, the rules applied to the commencement and cessation of a business, the allowances given in respect of the acquisition of the asset used for the purpose of the business, investment in rural areas and the location of the business, roll-over as applied to the sales of the items chargeable to capital gain tax, tax exemption on interest on a loan, loss reliefs (Ezejelue & Ihendinihu, 2006; Ogundajo & Onakoya, 2016). S. E. Bonner, J. S. Davis, and B. R. Jaskson (1992) noted that the corporate tax planning process required tax professionals in order to identify tax problems and the opportunities the firm has. The legality of corporate tax planning practices dates back to the legal case of Commissioner *versus* Newman in 1947, where the learned Judge Hand stated that it was not an evil to arrange one's affairs to the extent to which taxes were kept at their least (Kawor & Kportorgbi, 2014). This idea is supported by W. H. Hoffman's (1961) tax planning theory, which states that it is not economically sensible to pay tax above what is required by the law as its effect is always an adverse effect on performance, which always makes firms minimize their exposure to taxation.

The importance of tax planning for the performance of an economic unit has mostly been empirically argued (Desai & Dharmapala, 2009; Nanik & Ratna, 2015; Ogundajo & Onakoya, 2016; Zhang, Cheong & Rajah, 2016; Nwaobia *et al,* 2016) to be positive, which implies that the firms which derive the maximum benefit from tax planning always outperform those which do not engage themselves in tax planning. B. D. Kiabel and C. O. Akenbor (2014) revealed a significant and positive impact of tax planning on corporate governance. In contrast, some authors found that tax planning strategies exerted negative effects on firms' liquidity, but the effect was positive at the industry level, which implies that tax planning is favorable at the macro-, rather than at the micro-level. Surprisingly, M. A. Desai and D. Dharmaphala (2009) and S. Kawor and H. K. Kportorgbi (2014) noted that no relationship existed between tax planning and firms' market and performance.

Even though tax planning has been argued to have a significant effect when fully integrated into the strategic plans of many organizations, little has been heard of its implication for banks' performance, not to mention SIBs, because for the largest part the existing literature, specifically in Nigeria, the studies have been focused on the performance of manufacturing firms, except B. D. Kiabel and C. O. Akenbor (2014), whose study was on corporate governance in Nigerian banks, which creates a gap in the literature

regarding the performance of the industry regarded as the lifeblood of any economy.

Based on the above-said, the main objective of this study is to examine the impact of corporate tax planning on financial performance in Nigeria, with a specific interest in SIBs. They were selected based on their financial strength in the Nigerian banking industry. Therefore, there is a need for a close study of the financial performance of these banks because a failure in their financial performance could cause a significant dislocation in the country's economy, especially in the financial system, due to their size and market importance as they account for 70% of the banking industry's market share (Central Bank of Nigeria, 2016). Similarly, the W. H. Hoffman (1961) theory, which was initially hypothesized on firms, has been largely tested on manufacturing firms in the recent literature, especially so in Nigeria. Hence, there is a need for a shift in the paradigm towards other sectors.

This study is focused on the post-recapitalization era of banks in Nigeria, namely from 2006 to 2016, because some SIBs emerged as a result of the capitalization policy of the CBN. The panel dataset extracted from the annual financial reports of SIBs was used. In addition, the empirical model specified in this study, which explains the impact of corporate tax planning on the financial performance of SIBs in Nigeria, was estimated by using of pooled ordinary least square (OLS) after it had been subjected to both multicollinearity and the Breusch Pagan Lagrange Multiplier (LM) test.

Therefore, in the remaining part of the study, a literature review and the theoretical underpinning upon which the proposition of the study was hinged are presented in Section two, which is immediately followed by the methodology and the model specification in Section three, whereas in Section four the empirical results, their interpretation and discussion are presented. The last section provides the conclusion and the policy recommendations of this study.

LITERATURE REVIEW

Conceptual Clarifications

Corporate Tax Planning

Corporate tax planning (CTP) implies the strategies put in place in a business organization after comprehensively understanding the company's history and operations in order to maximize the firm's expected after-tax cash flows (Scholes, Wolfson, Erickson, Maydew & Shevlin, 2009). L. Nanik and W. Ratna (2015) noted that corporate tax planning implied the legal activities that reduced the transfer of resources from shareholders to the Government. B. D. Kiabel and N. N. Nwikpasi (2001) conceptualized that tax planning (TP) involved the planning and operations of a business in line with the statutory legislation so as for the firm to achieve the optimal or the best tax position in the process of achieving its business goals. It involves the detailed knowledge and application of tax policies, such as the rules guiding the commencement and cessation of a business, incentives on the pioneer status; allowances regarding investment, the business location, the acquisition and utilization of assets for the main purpose of the entity, the tax exemptions claimable on loans and the other legislation and regulations affecting the activities of the business entity (Ogundajo & Onakoya, 2016).

In a nutshell, CTP can be conceptualized as a legal act of transferring economic value from the state to the firm through the minimization of the tax liability by taking advantages of loopholes in tax laws and policies. B. D. Kiabel and C. O. Akenbor (2014) argued that tax planning was vital if management hope to minimize its tax cost. The need for tax planning includes the legal alleviation of the tax burden, the re-investment of tax savings, the promotion of investment and the achievement of economic development. Corporate tax plans are influenced by the nature and structure of capital, the accounting period, the size, the market structure and the business policies of a firm (Kiabel & Nwikpasi, 2001). The existing literature (Nanik & Ratna, 2015; Ogundajo & Onakoya, 2016; Zhang *et al*,

2016; Nwaobia *et al*, 2016) identified the significant tax planning strategies of a business organization, which include the effective tax rate, capital intensity, thin capitalization and the lease option.

The effective tax rate (ETR) measures a decrease in a firm's tax liability without a negative effect on the firm's accounting income (Ftouhi, Ayed & Zemzem, 2013). It mainly measures firms' tax performance by evaluating the actual corporate tax burdens with the percentage of the tax expenditure of a firm in relation to its profit before tax. K. A. Ftouhi *et al* (2013) noted that ETR indicated the aggressiveness of a firm's tax planning strategy through permanent book-tax differences.

Capital intensity is the amount of the money invested by business organizations so as to improve their output, which implies that the greater the investment applied to produce that same unit, the more capital-intensive the firm is (Sadia & Qaisar, 2012). Capital intensity is often considered as the ratio of the noncurrent assets over the total asset (Lee, Koh & Kang, 2011).

Thin capitalization is the strategy used by companies in order to structure their finance by having a high level of the debt-to-equity ratio. The companies using a tax planning strategy prefer to pay a high amount of interest expenses because tax laws treat interest expenses as tax-deductible. As a consequence, the tax burden will also be reduced (Organisation for Economic Cooperation and Development, 2012). Therefore, thin capitalization can be viewed as the strategy adopted by business organizations for the extensive level of the debt relative to equity so as to take the benefit of the interest on the debt in tax laws, which is an allowable expense.

The lease option is the agreement between the lessee and the lessor, in which the lessor provides an asset for the lessee to use for a specific period of time in return for a specified payment (Kraemer & Lang, 2012). Based on the International Accounting Standard 17, a lease is divided into finance and operating lease, which is either based on the idea of the substantial transfer of all the risks and rewards or not.

Corporate Performance of Banks

Banks perform a very germane role in countries' economic resource allocation by continually acting as a channel of funds from depositors to investors. In the process of ensuring economic stability, V. O. Ongore and G. B. Kusa (2013) noted that banks needed to be profitable so as to be able to reward their shareholders for their investment, thereby encouraging more investment, and in turn bring about the growth of the economy. Prior studies suggested financial ratios such as net after-tax income, returns on equity (ROE), net earnings, and return on assets (ROA) as the measurements of banks' financial performance (Pasiouras & Kosmidou, 2007; Kosmidou, 2008).

C. Okafor, K. Ikechukwu and U. Adebimpe (2010) disclosed that banks' performance could also be evaluated by using annual turnover and its sustainability, the extension of branches to remote areas, a bank's net profit, a percentage share in the domestic credit market, the price of shares, and positive employee performance. The European Central Bank (2010) identified risk-adjusted return on capital (RAROC) as a measure of a bank's performance, which allows the allocation of the bank's capital to individual business units taking into consideration the business risk of an individual business unit, but concluded that RAROC was only appropriate for determining statistical risk. The EY Global Financial Services Institute (2015) stated that ROE was commonly used as a performance metric of banks based on banks' appetite for risk in the form of an asset-quality and risk-normed leverage as the explicit driver of ROE. It also disclosed that ROE was a product of ROA and RAROC. Based on the foregoing arguments, this study recognizes ROE as a measure of the financial performance of banks.

Systemically Important Banks

The Financial Stability Board (2010) conceptualized that global systemically important financial institutions were the financial institutions that, either their distress or failure, have the tendency to significantly dislocate the global financial system and

create an adverse economic crisis across the globe because of their market size, market importance, and global interconnectivity. These are the financial institutions identified by the Basel-located bodies as the institutions whose disorderly failure has the tendency to create system-wide instability (Basel Committee on Banking Supervision, 2010). Due to this great importance of SIBs, the Financial Stability Board (2010) stated that it was mandatory for every country to have a system which is supervisory in nature in order to ensure that the regulations, including that of Basel III, were backed up by effective risk assessments and enforcement, especially as it relates to SIFIs. In addition, this supervisory system is expected to proactively identify problems and ensure prompt intervention so as to mitigate to the bare minimum the impact of these potential threats on both financial institutions and the financial system.

In Nigeria, the recognition of SIBs appeared as the response to the outcome of the G20 leaders' meeting held in November 2011 that the BCBS and the FSB should develop a framework for domestic SIBs in addition to the Global SIFIs (Central Bank of Nigeria, 2014). K. Dosekun and O. Senbore (2017) stated that the CBN had issued a framework that would ensure the regulation and supervision of the domestic SIBs which became operative on 1st March 2015, in light of the BCBS and the FSB developing a framework for D-SIBs and G-SIFIs. It should be noted that a SIFI can be any of the following: a bank, an insurance company, or any other financial institution, whose failure might trigger a financial crisis due to its size in terms of a market share, substitutability, interconnectedness, a cross-jurisdictional activity, and complexity. It is further stated that, due to the predominance of banks in the Nigerian financial system, this framework would focus on the enhanced supervision of SIBs (Central Bank of Nigeria, 2014), and presently there are eight SIBs in Nigeria, namely Skye Bank Plc, United Bank for Africa Plc, Ecobank Nigeria, Access Bank Plc, Zenith Bank Plc, Guaranty Trust Bank Plc, First Bank of Nigeria Limited, and Diamond Bank Plc.

Theoretical Review

The underpinning theory of this study is Hoffman's Tax Planning Theory, which argues that efficient corporate entities legally divert cash from tax authorities to the corporate purse (Hoffman, 1961). The theory notes that tax planning activities are only desirable when there is the tendency to bring to the bare minimum taxable income without having a negative effect on accounting income based on the fact that firms' tax liability is based on the former, rather than the latter, that is to say that tax is charged on taxable income. Therefore, firms should deepen their efforts in the tax planning activities that shrink the income that is subject to taxation, rather than an accounting profit. W. H. Hoffman (1961) stated that there was a positive relationship between the tax planning activities of a firm and its performance to the extent to which the tax benefits derivable from such activities exceeded the cost of tax.

Recent contributions (Inger, 2012; Kawor & Kportorgbi, 2014; Ogundajo & Onakoya, 2016) to this theory have agreed upon the proposition of Hoffman's theory that firms could only derive appreciable tax savings from their activities through a deeper understanding of the ambiguity of and loopholes in tax laws. Even though tax planning theories and the framework explain the tax planning incidence in multiple aspects in terms of its accruable benefits, costs, and realities, the theoretical literature discussing tax planning from the banking industry's perspective are limited, especially in Nigeria, because the existing literature has focused on the manufacturing sector (local and multinational companies). Based on this, the study hypothesizes as follows:

H1: There is a significant relationship between the corporate tax planning and financial performance of SIBs in Nigeria.

Empirical Review

Evidence from developed countries, such as M. A. Desai and D. Dharmapala (2009), who studied tax planning, corporate governance and firm performance in the USA, found that, on average, there

is no significant effect of tax planning on corporate performance. In China, by using structural equation modeling (SEM), C. Zhang *et al* (2016) examined the impact of corporate tax avoidance on firms' financial performance, and disclosed that there was a significantly positive and indirect relationship between tax avoidance and the market value because it had stimulated firms' growth and an increase in profitability just as the additional after-tax cash arising from tax avoidance had helped expand firm's market value. By focusing on European banks' profit, C. Vincenzo and M. Carlo (2011) applied regression analysis in their study and revealed that tax had an inverse impact on the stability of banking systems. In the USA, J. Blouin, H. Huizinga, L. Leaven and G. Nicodeme (2014) studied thin capitalization rules and the multinational firm capital structure, and found, among other things, that the implementation of the thin capitalization rule lowered the total interest expense and the valuation of a firm.

From developing countries, S. Kawor and H. K. Kportorgbi (2014) disclosed that tax planning had no significant effect on the performance of the listed firms in Ghana. L. Nanik and W. Ratna (2015) studied the tax planning (TP) and firm value of non-banking and financial firms in Indonesia with a board diversity as a moderating variable. The study showed that tax planning had a highly significant effect on the firms' value after the application of panel analysis in analyzing the data. In Pakistan, S. Sadia and A. M. Qaisar (2012) focused on the textile industry and disclosed that profitability, the size, and capital intensity affect the debt financing in the capital structures of the firms. By using the banking and insurance companies listed on the Colombo Stock Exchange (CSE), G. R. M. Gamlath and Y. Rathiranee (2013) explored the impact of the intensity and tangibility of capital on the financial performance of the firms by applying both correlation and regression analyses. The study showed that the intensity and tangibility of the capital of a firm had a significantly positive impact on the firm's financial performance and future stability. In Kenya, P. S. Wafula, G. S. Namusonge, and E. Nambuswa (2016) focused on the effect of leasing on the financial performance of Trans Nzoia County Government by carrying out regression analysis. The study showed that a finance lease had positive effects on return on asset. In Bangladesh, S. Abdus (2013) studied the effects of lease finance on the financial performance of SMEs by conducting content analysis. The study indicated a positive correlation between lease finance and financial performance.

In Nigeria, A. N. Nwaobia *et al (*2016) studied the effect of tax planning on the value of a firm, with a focus on consumer goods, by using the secondary data analyzed by applying a panel regression model. The study revealed that tax planning was significant with respect to the firm's value, but in the disaggregated result, the ETR, the dividend and the age of the firm had a significantly positive effect on the value of the firm, whereas the size of the firm, leverage, and tangibility had a significantly negative effect.

By employing the Generalized Least Square (GLS) method of regression, G. O. Ogundajo and A. B. Onakoya (2016) found out that aggressive tax planning, which included the effective tax rate, leverage, the size, and the age of firms, had a significant influence on the return-on-assets of the manufacturing firms quoted on the Nigerian Stock Exchange. B. D. Kiabel and C. O. Akenbor (2014) disclosed that there was a significant and positive impact of tax planning on the corporate governance of Nigerian banks. In contrast, some authors applied regression analysis to study firms' tax planning strategies and liquidity. The results revealed that tax planning strategies exerted negative effects on the firms' liquidity, but had positive effects on the liquidity of the industry, which implies that tax planning is favorable at the macro-, rather than the micro-level.

A Gap in the Literature

According to the literature review, there is a dearth of research into SIBs inside and outside Nigeria. The few ones in existence only focused on manufacturing firms, except for B. D. Kiabel and C. O. Akenbor (2014), and C. Vincenzo and M. Carlo (2011), which concentrated on tax planning and corporate governance in Nigerian banks and corporate income tax and value-added tax on the pre-tax profits of European banks, respectively.

METHODOLOGY

Ex-post facto is the adopted research design of this study. The population and the sample size of this study consisted of eight SIBs in Nigeria, namely Zenith Bank Plc, Skye Bank Plc, Ecobank Nigeria Plc, First Bank of Nigeria Limited, United Bank for Africa Plc, Guaranty Trust Bank Plc, Access Bank Plc, and Diamond Bank Plc. The secondary data derived from the annual reports of the SIBs were utilized in the study. In estimating the model in Equation (*1*), descriptive statistics were used to determine the normality of the data. The Variance Inflation Factors (VIF) test was carried out so as to detect multicollinearity; the Breusch Pagan Lagrangian Multiplier (LM) test was carried out so as to detect the presence or otherwise of the random effects in the specified model, whereas the Pooled OLS model was used for the model estimation.

The model for this study is specified in Equation (*1*) below:

$$PERF = f(ETR_{it}, CAPINT_{it}, TINCAP_{it}, LOPT_{it}, SIZE_{it}, MEFF_{it}, CAD_{it}) \quad (1)$$

$$PERF_{it} = \alpha_0 + \beta_1 ETR_{it} + \beta_2 CAPINT_{it} + \beta_3 TINCAP_{it} + \beta_4 LOPT_{it} + \beta_5 SIZE_{it} + \beta_6 MEFF_{it} + \beta_7 CAD_{it} + \varepsilon_t \quad (2)$$

where *PERF* is the firms' performance proxied with ROE; the *ETR* stands for the effective tax rate proven in the literature (Desai & Dharmapala, 2009; Nanik & Ratna, 2015; Ogundajo & Onakoya, 2016; Zhang *et al*, 2016; Nwaobia *et al*, 2016) as a proxy of the TP, the actual corporate income tax owed by the selected banks relative to pre-tax profits; *CAPINT* stands for the capital intensity that measures the level of a SIB's investment in non-current assets; *TINCAP* stands for thin capitalization, which is the ratio of the total debts of each SIB to its total assets; *LOPT* stands for the lease option that measures the lease arrangement of the SIBs. *CAPINT*, *TINCAP*, and *LOPT* were indicated in the literature in order to explain tax planning (Nwaobia *et al*, 2016).

In addition, the variables identified in prior studies as the variables which have a significant effect on a bank's performance were included in the model as controls. The control variables were: SIZE - the size of the SIBs, the size of the firm that was argued by F. Pasiouras and K. Kosmidou (2007) to influence the financial performance of firms. There is also a tendency for larger banks, rather than for smaller ones, to engage themselves in tax planning. This study measured SIZE as the natural log of the selected SIBs' total assets; *MEFF* stands for the managerial efficiency of the SIBs, which is the ratio of the cost overheads to the total assets, management efficiency being proven to impact financial performance (Ongore & Kusa, 2013; Noualli, Abaoub & Ochi, 2015), and *CAD* is the capital adequacy of the SIBs. The capital adequacy argued in the literature to influence the performance of top-rated banks (Pasiouras & Kosmidou, 2007; Noualli *et al*, 2015) is also evident in the frequent regulation of the capital adequacy of banks in Nigeria by the Central Bank of the country.

Where: ε_t = Stochastic Error Term/ Disturbance Factor, β_1- β_5 = Shift Parameters and α_0 = Constant Parameter.

A Priori Expectation

Based on Hoffman's 1961 hypothesis, this study a priori expected to find that corporate tax planning variables have a significantly positive impact on the financial performance of the SIBs in Nigeria.

RESULTS AND DISCUSSION

Descriptive Statistics

The descriptive statistics show some statistical properties of the variables used in this study. Table 1 shows that the average value of return on equity is 15.89%, which is indicative of the fact that, on a normal basis, the SIBs performed relatively well with respect to maximizing the shareholders' return over the period under review. The minimum and maximum values of return on equity are 0.61% and 43.45%, respectively. The minimum value is positive, which indicates that all the SIBs recorded positive returns over the period. The mean value of the

effective tax rate is 20.57%, which implies that, on average, the SIBs are effectively taxed at the rate of 20.57% over the period. The minimum and maximum values of the ETR are 0.67% and 106.44%, respectively. There is a large variance between the minimum and the maximum values of the effective tax rate, which implies that there is a wide disparity among the SIBs in their ability to reduce the tax burden. The mean value of capital intensity is 3.55%, with the minimum value of 1.30% and the maximum value of 6.57%. Thin capitalization has an average value of 6.15%, with 0% as its minimum value and 21% as its maximum value. On average, the lease option of the SIBs is ₦33,712.6 million. The lease option has the minimum value of 0 and the maximum value of ₦715,980 million.

Table 1 Descriptive Statistics

Variable	Mean	Minimum	Maximum
ROE	15.89	0.61	43.45
ETR	20.57	0.67	106.44
CAPINT	3.55	1.30	6.57
TINCAP	6.15	0	21.00
LOPT	33712.6	0	715980
SIZE	13.98	11.79	15.23
MEFF	5.06	1.67	10.94
CAD	18.92	6.27	38

Source: Authors

The mean value of the size is 13.98.46, which is but slightly higher than the minimum value of 11.79, and to some reasonable extent lower than the maximum value of 15.23. This indicates that the variance in the size of the SIBs is small, implying that they are not significantly different from each other with respect to their respective size. Management efficiency has the mean value of 5.26%, which is quite low. Also, the minimum and maximum values of management efficiency are relatively low. This indicates that, on average, the SIBs have been efficient in their respective operations over the period under review. The mean value of the capital adequacy ratio is 18.92%, which suggests that, on average, the SIBs are able to comply with the minimum capital adequacy ratio of 16% set by the CBN for SIBs. The minimum and maximum values of the capital adequacy ratio amongst the SIBs are 6.27% and 38%, respectively.

Test for Multicollinearity

Multicollinearity occurs when there is a strong linear relationship among explanatory variables in a regression model. The test for multicollinearity was determined by performing the Variance Inflation Factors (VIF) test. By using the VIF test, the rule of thumb is that the VIF for a variable must not be greater than 10 in order to confirm that the variable is not highly collinear. The result of the VIF test is presented in Table 2, which shows that all the variables have a VIF less than 10, which suggests the independent variables in the model are not highly correlated with each other.

Table 2 Variance Inflation Factors (VIF) Test

Variable	VIF
ETR	1.14
CAPINT	1.71
TINCAP	1.48
LOPT	1.34
SIZE	2.24
MEFF	`1.54
CAD	1.18
Mean VIF	1.52

Source: Authors

Breusch Pagan Lagrange Multiplier (LM) Test

In order to test the presence of the random effects in the specified model, the Breusch Pagan Lagrange Multiplier (LM) test with the null hypothesis of the no-random effect was conducted in this study. The decision rule is that if the Breusch Pagan Lagrange Multiplier (LM) result is significant at an either 5% or

10% level of significance, the null hypothesis will be rejected. The Breusch Pagan LM test in Table 3 shows the result of 0.630379 (p-value = 0.4272), 0.066182 (p-value = 0.7970) and 0.696561 (p-value = 0.4039) for the cross-section, time, and both, respectively. The result shows the null hypothesis is accepted as it is not significant at the 10% level of significance, which implies that the pooled OLS model is appropriate for the model estimation.

Table 3 Breusch-Pagan Test for Random Effects

Lagrange Multiplier Tests for Random Effects			
Null hypotheses: No effects			
Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided			
	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	0.630379	0.066182	0.696561
Prob.	(0.4272)	(0.7970)	(0.4039)
*Mixed chi-square asymptotic critical values:			
1%	7.289		
5%	4.321		
10%	2.952		

Source: Authors

Hypothesis Test

This subdivision tests whether Hoffman's hypothesis (1961) is valid with respect to the financial performance of SIBs in Nigeria or not. In order to test the level of the significance of this hypothesis, the pooled OLS results in Table 4 show that the effective tax rate (ETR) is negatively and significantly related to ROE, which indicates that a percentage increase in the ETR will adversely affect the financial performance of the SIBs by -0.14 percent (p-value = 0.018). On the other hand, thin capitalization (TINCAP) is positively and significantly related to ROE. This finding implies that a percentage increase in thin capitalization improves the financial performance of the SIBs by 0.53 percent (p-value = 0.038). Capital intensity (*CAPINT*) and the lease option (*LOPT*) are not significantly related to ROE as they indicate 0.147098 percent and -0.367822 percent, respectively, of the financial performance-ROE of the SIBs, with a p-value greater than the 10% level of significance, which means that an increase or decrease in capital intensity and lease options does not significantly influence the financial performance of the SIBs. Table 4 also shows that none of the control variables (*SIZE*, *MEFF*, and *CAD*) is significantly related to ROE, thus indicating that the size, management efficiency, and capital adequacy are not the determinants of financial performance.

Even with the mixed results of the individual proxies' effect of tax planning on financial performance, the F-statistics of 1.81 with a P-value lesser than the 10% level of significance show a joint, statistically significant effect of the *ETR*, *CAPINT*, *TINCAP*, *LOPT*, *SIZE*, *MEFF* and *CAD* on the financial performance of SIBs in Nigeria. Based on this, the study accepted the alternative hypothesis (H1) that there is a significant relationship between the corporate tax planning and financial performance of systemically important banks in Nigeria. This implies that Hoffman's hypothesis (1961) is valid with respect to the financial performance of SIBs in Nigeria.

Discussion of the Findings

This study examined the effect of corporate tax planning on the financial performance of Systematically Important Banks (SIBs) in Nigeria from 2006 to 2016. The empirical results show that the effective tax rate and thin capitalization are the only corporate tax planning measures that influence the financial performance of SIBs in Nigeria. The effective tax rate is negatively related to return on equity, thus suggesting that an increase in the effective tax rate of SIBs in Nigeria tends to reduce their financial performance. This further implies that the ability of SIBs in Nigeria to maximize their respective shareholders' return reduces as they seek to reduce their tax burden/liability. This finding negates A. N. Nwaobia *et al* (2016), who found that the effective tax

Table 4 The model estimation result of the corporate tax planning and performance of SIBs in Nigeria

Dependent Variable: ROE				
Method: Panel Least Squares				
Periods included: 11				
Total panel (unbalanced) observations: 87				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
ETR	-0.143413	0.059218	-2.421771	0.0177
CAPINT	0.147098	1.125955	0.130643	0.8964
TINCAP	0.527374	0.249285	2.115544	0.0375
LOPT	-0.367822	0.529185	-0.695072	0.4890
SIZE	-1.595200	1.907330	-0.836352	0.4055
MEFF	-0.310515	0.750743	-0.413610	0.6803
CAD	0.004517	0.172769	0.026144	0.9792
C	42.19302	27.22594	1.549736	0.1252
R-squared	0.138295	Mean dependent var		15.88998
Adjusted R-squared	0.061941	S.D. dependent var		9.456203
S.E. of regression	9.158657	Akaike info criterion		7.354724
Sum squared resid	6626.599	Schwarz criterion		7.581474
Log likelihood	-311.9305	Hannan-Quinn criter.		7.446029
F-statistic	1.811240	Durbin-Watson stat		1.521552
Prob (F-statistic)	0.096599			

Source: Authors

rate was positively and significantly related to a firm's performance and Hoffman's hypothesis (1961), which suggests that the effective tax rate increases financial performance.

Thin capitalization is positively related to return on equity, which indicates that an increase in the strategy used by companies to structure their financing with a relatively high level of the debt-to-equity ratio is likely to improve the financial performance of SIBs in Nigeria. This finding further indicates that the ability of the SIBs in Nigeria to increase their respective shareholders' returns tends to be boosted when there is higher debt financing compared to equity financing. This finding is supportive of Hoffman's hypothesis (1961), which suggests that thin capitalization promotes financial performance. This contradicts the findings of J. Blouin *et al* (2013) that the implementation of the thin capitalization rule reduces the total interest expense and valuation of a firm, which is often affected by the firm's performance.

Capital intensity and the lease option demonstrate an insignificant effect on the financial performance proxy (ROE). which means that an increase or decrease in capital intensity and lease options does not influence financial performance, which is in opposition to the result obtained by G. R. M. Gamlath and Y. Rathiranee (2013) stating that there is a significant relationship between capital intensity and financial performance, whereas P. S. Wafula *et al* (2016) and S. Abdus (2013) revealed that lease is significant for financial performance.

The overall result of this study is in agreement with Hoffman's hypothesis (1961) premised on the idea that as long as a firm intensifies the events that decrease a taxable liability with no negative impact on the accounting profit, there is a tendency towards the improvement of its financial performance.

CONCLUSION

The excessive burden of taxation has always made taxpayers devise ways, either legally or illegally, or both, to reduce or evade taxation. Based on this, the study investigated the implication of tax planning for the financial performance of SIBs. The study concludes that corporate tax planning has a significant impact on the financial performance of SIBs in Nigeria, depending on the adopted tax planning strategies. The thin capitalization strategy of the SIBs indicated a strong significant impact on their respective financial performance as the empirical result of this study establishes the fact that it significantly and positively influences the return on equity of SIBs in Nigeria. There is a negative relationship between the ETR and financial performance given the fact that an increase in the effective tax rate was found to have a negative influence on the financial performance of the SIBs.

Based on the outcome of this study, the study recommends that tax authorities should engage themselves in the tax reforms whereby the corporate tax rate is to be adjusted given the fact that the effective tax rate indicated an inverse significant impact on financial performance, on the one hand, and that banks should engage themselves in the activities that can reduce the effective tax rate, on the other. Banks should engage themselves more in debt financing given the fact that it showed a significant impact on performance. Engaging in debt financing reduces a tax liability due to the fact that the interest paid on a debt is an allowable expense which reduces the chargeable profit. SIBs should not concentrate on the lease option and capital intensity as a tax planning strategy since they are not influential when their respective financial performance is concerned.

This study is limited to a single measure of financial performance based on the several indicators of the financial performance of SIBs. Nevertheless, this study contributes to the existing studies on Hoffman's hypothesis (1961) initially hypothesized on firms as the result of this study validated the hypothesis on SIBs in Nigeria. In addition, this study has established the implication of tax planning for the financial performance of SIBs as the extant literature on tax planning largely concentrated on manufacturing firms.

The direction for future research into corporate tax planning in Nigeria could be tailored towards the behavioral aspect of the tax planning strategy as it pertains to the financial sector. In addition, expanding the scope of this research in terms of the measures that explain the financial performance of SIBs can be explored.

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MONETARY STAGES AND FRAMEWORKS OF EMERGING EU MEMBERS

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The paper reviews the monetary stages and frameworks towards the eurozone (EZ) for emerging EU members. At the first pre-EU stage, three monetary frameworks were identified, whereas at the second pre-EZ stage, the emerging EU members combined ER targeting with the rigid/fixed exchange rate regimes (ERRs), on the one hand, and inflation targeting (IT) with the Exchange Rate Mechanism (ERM II), on the other. The last stage of monetary convergence assumes monetary nonautonomy within the monetary union as a rigid ERR, where the ER and monetary policies are sacrificed as countercyclical instruments. Countries with rigid ERRs are more prone to macroeconomic overheating, performing worse under a crisis impact compared to the floaters. The difficulties to maintain stability under a rigid ER environment, such as the monetary union, as well as the inherent vulnerabilities of the EZ, are crucial for the delayed entry of some EU members into the ERM II.

Keywords: eurozone, exchange rate mechanism, monetary convergence, adjustment mechanisms, monetary and exchange rate regimes

JEL Classification: E52, F15, F45

INTRODUCTION

New EU members do not automatically accept the euro after accessing the EU although they participate in the Economic and Monetary Union (EMU). The EMU assumes a gradual development of candidate countries (the convergence process) leading to the common currency at the end of the road. Bearing in mind the fact that all emerging EU countries must adopt the euro sooner or later, the monetary authorities of emerging Europe are confronted with necessary changes in the exchange rate regimes (ERRs) and the monetary regimes. Basically, the three key stages could be identified in the process of monetary convergence towards the euro area (European Commission, 1998; De Grauwe & Schnabl, 2004). The first stage includes the period until the EU entry; the second stage assumes the period between the EU entry and the adoption of the euro, while the third stage indicates participation in the eurozone (EZ).

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Emerging European economies (EEEs) chose a different ER and monetary strategies on the road towards the EU. On the one hand, countries choose an exchange-rate peg in different forms: the currency board, conventional pegs, intermediate exchange-rate regimes (the group of fixers). The fixers adopted ER targeting as the monetary framework with a limited maneuvering space for the monetary policy. As another option, countries opted for the managed floating ERR and inflation targeting (IT) as the monetary framework (the floaters). This monetary path assumes a more flexible monetary policy since it is not constrained by a specific euro peg. While the first stage of monetary convergence allows autonomy in choosing an adequate monetary option, the second is, however, more limited since EU members should, sooner or later, accomplish the Maastricht convergence criteria, including the Exchange Rate Mechanism (ERM II) target zone. The second stage of monetary convergence is a real challenge for the monetary authorities of the EEEs given the fact that nominal and real convergence are very difficult to reconcile within the ERM II target zone. The evolution of the ERRs and the monetary regimes of emerging EU members on the road towards the EZ in the period 1990-2018 is identified in Table 1 and Table 2.

EEEs should be well-prepared in terms of sustainable real and nominal convergence in order to for them to function under the constrained monetary environment in the ERM II. The ERM II target zone is a preparation for an even more rigid monetary environment within the EZ, bearing in mind the complete loss of monetary autonomy. These monetary switches are complex, especially with respect to the floaters who are accustomed to a higher ER

Table 1 The evolution of ERRs in the emerging EU members in the period 1990-2018

Country/ ERR	Currency board	Conventional fixed ER	Adjustable peg	Crawling peg	Crawling corridor or target zone	Managed floating	Free floating	Target zone ERM II	Monetary union (EZ)
	Rigid ERR	Intermediate (hybrid) ERR				Flexible ERR		Intermediate ERR	Rigid ERR
Estonia	1992:06-2004:06							2004:06-2011:01	since 2011:01
Lithuania	1994:03-2004:06							2004:06-2015:01	since 2015:01
Latvia		1994:02-2005:04						2005:04-2014:01	since 2014:01
Slovenia						1994:01-2004:06		2004:06-2007:01	since 2007:01
Poland			1990:01-1991:10	1991:10-1995:05	1995:05-2000:04		since 2000:4		
Czech R.		1990:01-1996:02			1996:02-1997:05	since 1997:05			
Slovakia		1990:01-1997:01			1997:01-1998:10	1998:10-2005:11		2005:11-2009:01	since 2009:01
Hungary				1994:01-2001:0	2001:05-2008:02		since 2008:02		
Bulgaria	since 1997:07					1990:01-1997:07			
Romania						od 1994:01			
Croatia				since 1994:01					

Source: Authors

Table 2 The evolution of the monetary regimes in the emerging EU members in the period 1990-2018

Country/monetary regime	Monetary nonautonomy	Exchange-rate targeting	Inflation targeting	Other anchors (targets)
Estonia	since 2011:01	1992:06-2011:01		
Lithuania	since 2015:01	1994:03-2015:01		
Latvia	since 2014:01	1994:02-2014:01		
Slovenia	since 2007:01			1991:10-2007:01 monetary-based targeting
Poland		1990:01-2000:04	since 2000:04	
Czech R.		1990:01-1996:02	since 1997:12	
Slovakia	since 2009:01	1990:01-1997:01		1998:10 more targets
Hungary		1994:01-2001:05	since 2001:05	
Bulgaria		since 1997:07		1991:06-1997:07
Romania			since 2005:08	1994:01-2005:08 monetary-based targeting
Croatia		since 1994:01		

Source: Authors

and monetary flexibility, and who benefited from the role of the ER as a shock absorber in crisis circumstances. Therefore, the subject matter of this research study are the monetary policy frameworks or the monetary switches at the different stages of convergence towards the EZ. The aim of the research study is focused on the identification of the main challenges of the monetary authorities at different stages, as well as the efforts in choosing an adequate combination of the exchange rate and the monetary regimes in balancing between internal and external equilibria. Although the exchange rate regimes or monetary regimes were explored in the existing literature from the aspect of the emerging European economies, as well as the EZ *per se*, in this paper, the literature gap is filled with a sublimation of all the phases of monetary convergence from the beginning of transition, tracking the monetary evolution of emerging EU countries until the EZ participation (Table 1 and Table 2). The following hypotheses were tested in the paper: flexible exchange-rate regimes with the maintenance of monetary autonomy deliver more maneuver space for the monetary authorities by absorbing external shocks under crisis circumstances, and *vice versa*, rigid exchange-rate regimes, such as currency boards and the monetary union, are more vulnerable to macroeconomic overheating with consequent sharp internal and external adjustments in post-crisis periods. The hypotheses are tested by using the methods of induction, analysis, synthesis, descriptive statistical analysis, and the comparison method as well. The paper is structured as follows: Section 1 deals with the monetary frameworks and ERRs of emerging Europe at the first stage of monetary convergence. The crucial challenges of the second stage of monetary convergence, especially the ERM II participation, are highlighted in Section 2. In Section 3, the main difficulties of the emerging EU members at the third stage of functioning within the EZ are analyzed. The main concluding remarks are outlined in the final section.

THE DIVERSITY OF MONETARY FRAMEWORKS AND ERRS BEFORE THE EU ENTRY

The diversity is evident among the EEEs concerning the adoption of the ER and the monetary frameworks (Nerlich, 2002; Amerini, 2003; Frommel, 2006; International Monetary Fund, 2017). Most emerging economies used the ER as a nominal anchor or ER targeting in the macroeconomic stabilization phase.

The reason for an almost uniform anti-inflationary recipe is well-known. The exchange rate represents a natural anchor in vulnerable economies, bearing in mind their (hyper)-inflationary past and persistent inflationary expectations. An exchange-rate peg is a transparent and clear anchor for market participants. Consequently, inflationary expectations could be anchored firmly and relatively quickly due to the confidence and credibility of the monetary authorities bound by the parity defense. Some countries kept different forms of the fixed ER, including the rigid form of the currency board, whereas other countries (strategically or in a crisis manner) switched the anchor towards the IT regime with a more flexible ER arrangement. In general, the three groups of countries could be identified according to the applied ER and monetary strategies.

The first monetary path assumes no change in the ER and the monetary regimes until joining the EU. This group includes Estonia, Lithuania and Latvia (the Baltic States). These countries used the ER as a nominal anchor (or ER targeting) in the macroeconomic stabilization phase, and even retained the same monetary strategy in the post-stabilization phase. According to the International Monetary Fund (2017), ER targeting comprises a currency board, a conventional fixed parity, an adjustable and crawling peg, all the way to a regime with wider fluctuation margins (corridors or target zones) on the flexibility continuum (Frenkel, 1999). Estonia and Lithuania have been using the currency board since June 1992 and March 1994, respectively. Latvia has been practicing a less rigid ER regime and a conventional fixed parity since February 1994. Estonia, Lithuania and Latvia have not changed the ERR even within the ERM II target zone at the second stage of monetary convergence towards the EZ. For more information about monetary evolution during the convergence process, we refer you to the cases of the Baltic States mentioned in Table 1 and Table 2.

The second monetary path includes the ER as a nominal anchor only at the beginning of transition in pursuing macroeconomic stabilization. The benefits related to the monetary strategy of ER targeting were decreasing over time, bearing in mind the inertia of inflation. At the same time, the costs were increasing, especially in connection with the real exchange rate appreciation and the worsening of the external imbalance. Poland, the Czech Republic, Slovakia and Hungary (Višegrad Group) abandoned the ER as a nominal anchor as a part of the strategic monetary shift. By implementing the exit strategy, these economies gradually raised the ER and monetary flexibility by accepting different intermediate ER arrangements (Josifidis, Allegret & Beker Pucar, 2011; 2014). The monetary authorities of the Višegrad economies left ER targeting (the conventional fixed parity, the adjustable and crawling peg) and accepted intermediate ERRs, and finally managed/free floating in combination with the IT regime. After having accepted managed floating and an implicit IT monetary framework, the Slovak Republic experienced two relevant changes. Namely, after the EU accession, this economy participated in the ERM II mechanism, thus returning to the intermediate ER form. Since 2009, the second change has assumed a loss of the Slovakian monetary autonomy with its entry into the EZ. Poland, the Czech Republic and Hungary have not participated in the ERM II yet; currently, they are practicing the same combination of managed/free ER floating and the IT framework. Despite the common path from the ER as a nominal anchor to the IT policy, the pace of and the successfulness of the changes differed among the Višegrad economies. In order to learn about their monetary evolution in the period 1990-2018, we refer you to Table 1 and Table 2.

The third monetary path was followed by the former transition economies that had not accepted any of the previously mentioned monetary strategies (retained ER stability or rising ER flexibility). Instead of these paths, the countries belonging to this group accepted different hybrid regimes without an explicit and unique nominal anchor. This group includes Slovenia, Bulgaria, Romania and Croatia. Slovenia used different *de jure* regimes, having preferred more or less fixed regimes prior to the EU accession. After joining the EU in 2004, Slovenia approached the ERM II target zone so as to eventually become a member of the EZ in January 2007. Bulgaria, following the unsuccessful ER fixing initiated in 1991, switched

towards free ER floating. Under the pressure of the currency crisis in 1997, the Bulgarian monetary authorities replaced managed ER floating and the nontransparent monetary strategy with the rigid ER arrangement of the currency board. Although the ER *de facto* had served as a nominal anchor since the beginning of transition, Bulgaria and Slovenia were forced to the *de jure* floating ERRs at the beginning of transition due to the insufficient level of the foreign exchange reserves necessary to maintain the parity (Nerlich, 2002). Croatia has been implementing a crawling peg as an intermediate regime and ER targeting since 1994, preserving the variations of these regimes prior to and after the EU accession in 2013. Romania had used different forms of intermediate ERRs without an explicit and transparent monetary strategy until 2004 and has been converging towards the managed floating ERR in combination with the IT regime since 2004 (Table 1 and Table 2).

It is not possible to determine a unique monetary strategy acceptable for all countries on the road to the EU. Although the common element of all the monetary strategies was the primary goal of the price stability, the other elements were specific and dependent on the applied ERR. A general success in anchoring inflationary expectations was independent of the applied monetary strategy or the nominal anchor. However, it is important that the chosen monetary strategy should reflect the price and, more broadly speaking, the macroeconomic stability necessary to underpin a further nominal and real convergence towards the EU and the EZ.

THE SECOND STAGE OF MONETARY CONVERGENCE: A FOCUS ON THE ERM II TARGET ZONE

Independently of the chosen monetary strategy on the road to the EU, member countries must pass through the second phase of monetary convergence on their way to the EZ membership. The accomplishment of the Maastricht criteria should guarantee the stability of the monetary union's single currency zone. One of the Maastricht criteria related to the ERR prior to the monetary union is known as the ERM II. Accessing the EU does not automatically involve participation in the ERM II. However, the decision to join the ERM II is crucial since an adequate level of nominal and real convergence with the rest of the EZ should precede this important step of monetary integration (Schadler, Drummond, Kuijs, Murgasova & van Elkan, 2005). The more an economy is integrated and the more it has been converging with the rest of the EZ, the lesser the possibility for it to experience asymmetric external shocks, currency crises, and an inappropriate parity against the euro under the constrained monetary environment of the ERM II target zone. Since monetary autonomy is confined under the ERM II corridor, economies are trained for an even more rigid monetary environment of the monetary union with the total renouncement of monetary sovereignty (Bofinger, 2004; Schalder *et al*, 2005).

The ERM II represents the most flexible form of the hybrid (intermediate) ERR. It is the target zone or the corridor with the fluctuation margins of +/- 15% around the fixed parity against the euro. The monetary framework of the ERM II is so designed to be flexible enough since the following ERRs are considered as acceptable (Stavárek, 2004, Backe & Thimann, 2004):

- the conventional fixed parity against the euro as a classic fixed-parity without fluctuation margins;
- the narrow target zone or the wider target zone with fluctuation margins up to +/-15% around the euro peg;
- the currency board.

On the other hand, the following ERRs are regarded as unacceptable:

- the fixed parity against other (non-euro) currencies;
- free ER floating;
- crawling pegs;
- unilateral euroization.

Therefore, the elements that must be fulfilled in order to participate in the ERM II are:

- the central, fixed (not adjustable, crawling) parity;
- the parity defined to the euro;
- fluctuation margins of up to +/- 15%.

At the second monetary stage, after the EU accession and prior to the EZ, there are two monetary paths possible to identify according to the applied ER and monetary regimes. The first assumes switching to the opposite side of the ER arrangements, i.e. from a flexible towards an intermediate form of the ERM II. In contrast to the ERR that will *de facto* be exposed to changes in accordance with the progress of monetary convergence, the monetary regime could be withheld in the IT form. Participation in the ERM II assumes the maintenance of the target zone in a period of two years, implying the targeting of both variables - the exchange rate and inflation - thus making a strict IT framework unacceptable. The simultaneous targeting of the ER and the inflation rate is very complicated under the ERM II framework. Numerous papers have explored the unsustainability aspect of the ERM II in attaining convergence criteria (Adahl, 2000; Begg, Eichengreen, Halpern, Hagen & Wyplosz, 2003, Fahrholz, 2003; Eijffinger, 2003; Issing, 2003; Polanski, 2004; Stavarek, 2004). This complexity is the reason why to change the type of IT by accepting a dynamic approach from strict to flexible IT is preferable (Orlowski, 2005). Poland, the Czech Republic, Hungary and Romania follow this monetary path towards the EZ, while the Slovak Republic was on this track before its EZ 2009 entry.

Another monetary framework at the second stage of monetary convergence was practiced by the countries without a significant change in the monetary policy regime (ER targeting) and the ERR (the currency board or the conventional fixed parity against the euro). If the ERM II were a rigid mechanism (not relatively flexible as it is), these countries would experience the biggest change. In such a way, the countries with the fewest changes in the monetary policy, the ERR and the adjustment mechanisms at the second stage of monetary convergence are Estonia, Lithuania, Latvia, and Bulgaria. Bulgaria is still at the second stage of monetary convergence (and has been at this stage since 2007), whereas the Baltic countries are already at the third stage of the EZ participation (Estonia has been at this stage since 2011, Lithuania since 2014, and Latvia since 2015). Although the situation regarding the monetary strategy on the way to the EZ is less transparent in the case of Slovenia, this economy could be considered to have been following this monetary path without radical changes in the nominal anchor and the adjustment mechanisms. Now, Slovenia has been at the third stage since 2007, like the Baltic States.

The two-year participation in the ERM II, along with the fulfillment of the other Maastricht criteria, indicates that economic convergence is sustainable enough and that the economy is able to participate in the monetary union without significant asymmetries, imbalances and costly adjustments. The ERM II also provides information on the adequate central parity of the national currency in relation to the euro, which will become irrevocable by entering the EZ. However, the essential purpose of establishing the ERM II monetary arrangement prior to the EZ membership is a preparation for functioning within the monetary union. After entering the EZ, member countries cannot use the monetary policy and the ER policy countercyclically in order to isolate their national economies from external shocks. National monetary authorities can no longer favor the currency weakening in order to stimulate economic (export) activities and improve the external (deficit) position. The impact on the real economy and the external balance after entering the EZ can exclusively be made by budgetary and structural policies.

THE THIRD STAGE OF MONETARY CONVERGENCE: THE MONETARY UNION

The Monetary Framework

The decision to enter the ERM II is complex and crucial, and the same holds for the decision

stipulating when to finalize monetary convergence and accept the euro. The exchange rate mechanism II can be an adequate framework for finalizing the convergence process, but it is necessary to select the right moment to leave the ERM II and accept a single currency. The moment of fundamental economic change always involves the analysis of the costs and benefits of both options, namely the ERM II vs the EMU (Ćorić & Deskar Škrbić, 2017). A relatively wide corridor of +/- 15% in the ERM II provides sufficient monetary flexibility in order to correct the remaining differences in the real and the nominal indicators. On the other hand, the acceptance of the euro brings with itself lower interest rate premiums, lower real interest rates and a reduced risk of speculative attacks (Issing, 2003).

The benefits of a longer participation in the ERM II target zone can be preferable for some economies rather than their entering the monetary union. A longer participation involves the benefits of greater ER flexibility (the limited, but still present, role of the ER as a shock absorber) in adjusting the remaining differences in productivity, wage growth and inflation relative to the EZ. Once the euro is accepted, such differences will have to be neutralized by internal devaluation or an internal (restrictive) adjustment. The mentioned adjustment mechanism is painful since it includes the price, the wage, the output and employment lowering in order to restore competitiveness in a more difficult and painful way (De Grauwe & Schnabl, 2004). The participation of the EU member states in the EZ will be decided in light of meeting the conditions necessary for accepting the single currency. The combination at the third stage of a monetary convergence is monetary nonautonomy and the monetary union as a rigid ERR. The choice of and a change in the ER and monetary regimes are no longer observed in the national context.

Two groups of countries are possible to identify at this stage of monetary convergence: the one with more radical and the other with smaller changes with respect to the nominal anchor. The first monetary path assumes the radical transformation of the monetary regime and a complete change in the nominal anchor in the sense of switching from the IT framework (with significant monetary flexibility) to the rigid ER regime of the monetary union (Belhocine, Crivelli, Geng, Scutaru, Wiegand & Zhan, 2016). This group of countries passes through the strongest change in the ERR since, instead of the ERM II target zone (with significant fluctuation margins), they irrevocably fix the value of the domestic currency to the euro, further abolishing the national currency and the ER/monetary policy. This group includes Slovakia (which has been included in the group since 2009) and potentially includes Poland, the Czech Republic, Hungary and Romania since these EU members have not participated in the ERM II yet.

The second monetary path is followed by the economies with a less radical transformation of the monetary regime (International Monetary Fund, 2015; Bakker, 2017). It is a change from the ER as the nominal anchor of the monetary regime (with an inflexible monetary policy) towards a complete loss of monetary autonomy. The rigid ERR of the currency board and a conventional fixed parity are replaced with the rigid ERR of the monetary union. This change is weaker compared to the previous group of countries since a high level of rigidity is replaced with the highest level of rigidity or a complete loss of monetary sovereignty. Change in the adjustment mechanisms in the countries that targeted the ER from the start of the transition process is immeasurably weaker, bearing in mind the fact that these countries have not felt the advantages of a flexible monetary policy, having been accustomed to the deflationary-inflationary adjustment mechanism also prevailing in the EZ. Change is still formally large since the monetary policy is lost and there is no obligation to defend the parity. This monetary path has been followed by Slovenia, Estonia, Latvia and Lithuania, which have been the EZ members since 2007, 2011, 2014, and 2015, respectively.

Challenges for the Emerging EU Members under the Rigid Monetary Environment

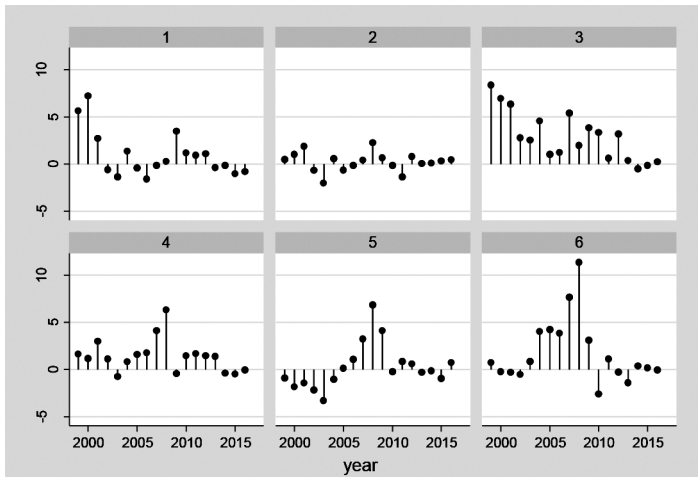
Whatever monetary framework towards the EZ has been chosen, functioning within the monetary union assumes an exclusive focus on a restrictive (or

expenditure-reducing) external adjustment since the ER can no longer act as a shock absorber. The rigidity of such restrictive adjustment in the absence of a redistributive (expenditure-switching) adjustment was especially pronounced in the emerging EU members under crisis circumstances, namely under the Great 2008 Recession (Kang & Shambaugh, 2014; Beker Pucar & Srdić, 2018). Estonia, Lithuania and Latvia (the Baltic States) (the EZ members), on the one side, and Poland, the Czech Republic and Hungary (the EU members), on the other, could be regarded as the representatives of the two opposite monetary frameworks. As far as the mentioned economies are concerned, Figure 1 shows the inflation differential, whereas Figure 2 shows the productivity and GDP growth differentials compared to the EZ in the period 2000-2018. These figures reflect the internal imbalances on the monetary (Figure 1) and the real sides of the economy (Figure 2).

If we take a closer look into the two aspects of the internal balance, the monetary via the inflation rate, and the real via the GDP growth and productivity, Figure 1 and Figure 2 unambiguously demonstrate that the countries with a rigid ERR and ER targeting (the Baltic States) are more prone to macroeconomic overheating. Namely, inflation, the GDP growth and the productivity differences compared to the EZ in the pre-crisis period are more pronounced for the Baltic States compared to Poland, the Czech Republic, and Hungary. Consequently, as a reflection of internal overheating, the savings/investment gap (Figure 3, the left-hand side) culminated prior to the crisis, as well as the current account deficit (Figure 3, the right-hand side).

All the macroeconomic imbalances, both the internal (Figure 1 and Figure 2) and the external (Figure 3), culminated prior to the Great 2008 Recession. Accordingly, the internal and external adjustments were the sharpest for the Baltic States in the post-crisis period, especially bearing in mind the fact that these economies were not able to use the ER as a shock absorber. Figure 4 expectedly shows higher nominal ER variations in the case of the floaters (the left-hand side) compared to the fixers (the right-hand side). The only option for these economies was sharp internal devaluation (a restrictive, expenditure-reducing adjustment) accompanied by a drop in the output and employment (as Figure 2 suggests) under the crisis-driven external shocks. On the contrary, on the road to the EZ, Poland, the Czech Republic and Hungary were able to use another, more convenient adjustment option of the currency weakening with a less bumpy road towards the EZ (Herrmann & Jochem, 2013; Josifidis, Allegret & Beker Pucar, 2014; Bakker, 2017). Figure 4 suggests that Poland mostly used the ER as a shock absorber with relatively the highest nominal exchange rate variations between the floaters. Alongside this fact, Poland was the only EEE not to experience a recession after the outbreak of the crisis. Due to the currency weakening under external shocks, Poland was able to avoid sharp internal devaluation. In the group of the fixers, Latvia experienced relatively higher nominal exchange rate corrections (mainly devaluation in the pre-crisis period), but that was the expected indicator since this economy had not formally accepted the currency board, as Estonia and Lithuania had.

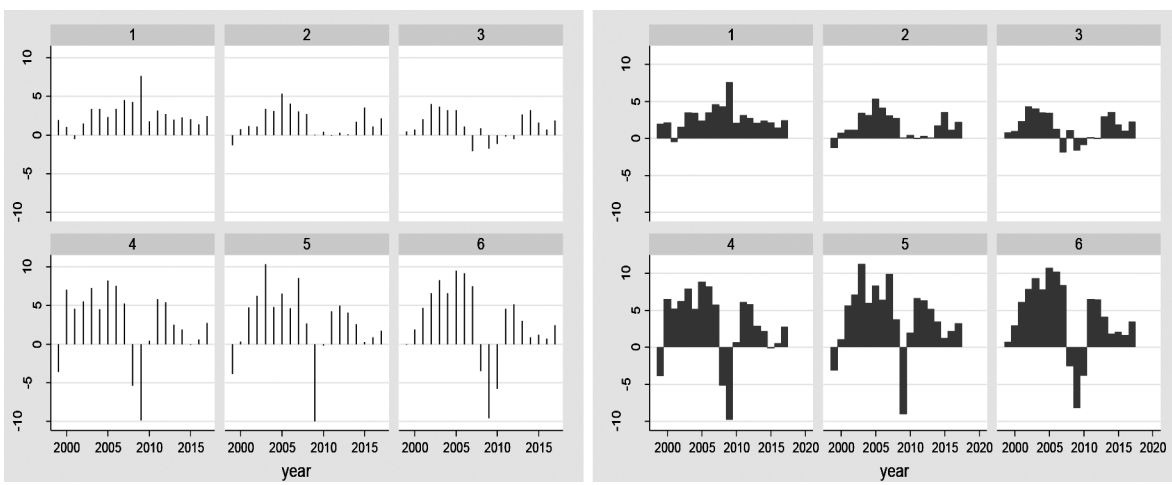
As the case of the emerging EU members with a rigid ERR under the crisis impact clearly shows, the crucial sacrifice is the inability of the monetary countercyclical adjustment and a loss of the ER as a shock absorber under the crisis impact. The same pattern is present within the monetary union in the sense of lowered flexibility in adjusting to asymmetric shocks. The real exchange rate adjustment to such asymmetric shocks is completely performed through the price and wages, i.e. through internal devaluation (Gibson & Palivos, 2013). The EZ 2010 crisis showed that it was not simple to perform these price adjustments without nominal ER adjustments, especially in the low-inflationary environment of the EZ. After the outbreak of the crisis in such a rigid environment, the internal balance deteriorated (unemployment rose, and the output fell) due to the stabilization of the external position. Taking into account the asymmetry within the EZ between the core and the periphery, the most severe consequences of the external adjustment were expectedly recorded in the vulnerable periphery countries. Being aware of the significant sacrifice of entering the EZ, Poland, Czech Republic and Hungary have not participated in



Notes: 1 - Poland, 2 - Czech Republic, 3 - Hungary, 4 - Estonia, 5 - Lithuania, 6 - Latvia. The inflation (the consumer prices, the annual percent) differential - the difference between the domestic inflation rate and the EZ inflation rate. The yearly time series of the national and the EZ inflation rates are obtained from the IMF International Financial Statistics and the WB World Development Indicators.

Figure 1 The inflation differential compared to the EZ for the selected emerging EU members in the period 2000-2018

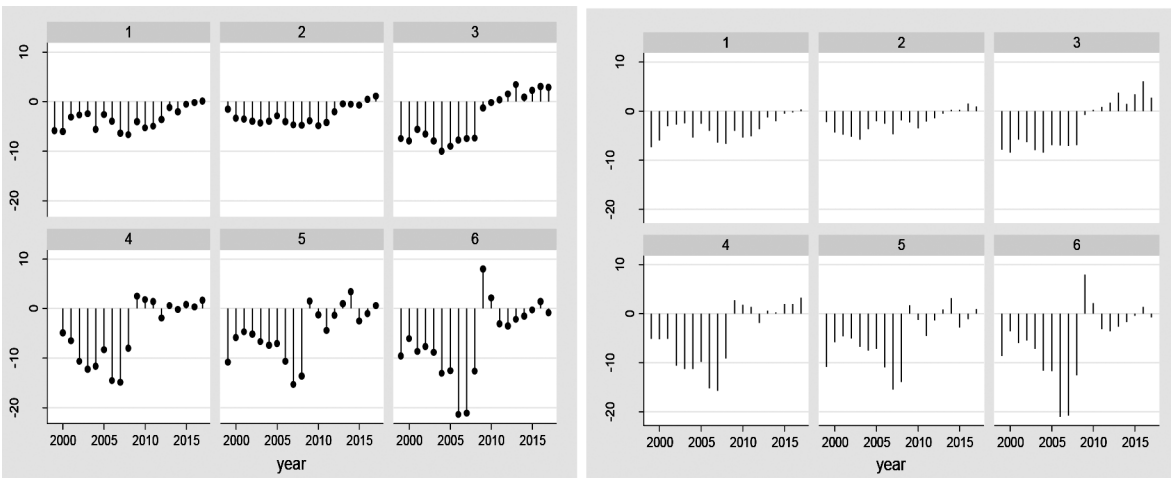
Source: Authors



Notes: 1 - Poland, 2 - Czech Republic, 3 - Hungary, 4 - Estonia, 5 - Lithuania, 6 - Latvia. The GDP growth (the annual percent) difference - the difference between the national GDP growth and the EZ GDP growth. The productivity differential (GDP/employment) - the difference between the national variable and the EZ productivity variable. The yearly time series of the GDP growth, the GDP and employment, are obtained from the IMF International Financial Statistics and the WB World Development Indicators.

Figure 2 The GDP growth differential and the productivity differential compared to the EZ for the selected emerging EU members in the period 2000-2018

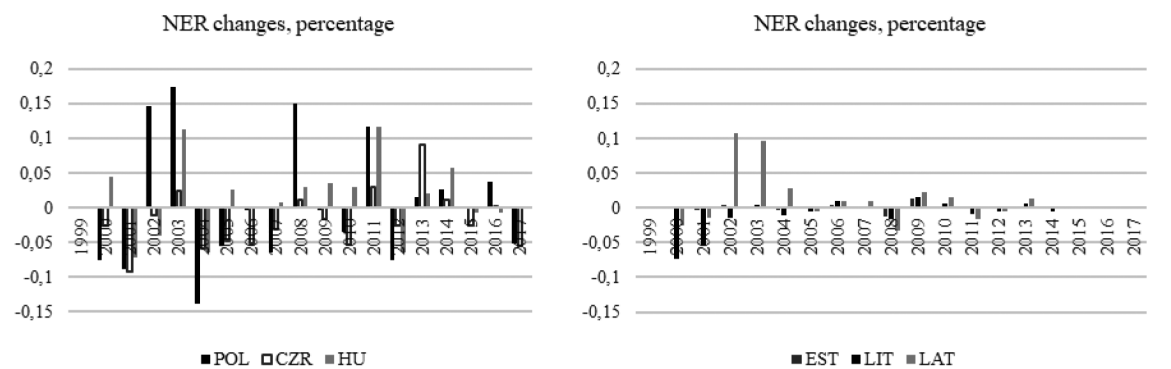
Source: Authors



Notes: 1 - Poland, 2 - Czech Republic, 3 - Hungary, 4 - Estonia, 5 - Lithuania, 6 - Latvia. The yearly time series of the current account balance and the savings/investment gap are obtained from the IMF International Financial Statistics and the WB World Development Indicators.

Figure 3 The savings/investment gap and the external imbalance (the current account balance as a % of the GDP) in the selected emerging EU members in the period 2000-2018

Source: Authors



Napomena: POL – Poland, CZR – Czech Republic, HU – Hungary, EST – Estonia, LIT – Lithuania, LAT – Latvia. Yearly series of the nominal exchange rate (the domestic currency as per euro, the end of the period, the rate) obtained from the IMF International Financial Statistics.

Figure 4 The nominal exchange rate variations for the selected emerging EU fixers (on the right) and the floaters (on the left) in the period 1999-2017

Source: Authors

the ERM II yet. Delayed participation is often viewed as the superior performance of these economies during the crisis compared to the other monetary frameworks (but also compared to the weaker EZ members), as well as the current weaknesses of the EZ itself (Palankai, 2015).

Given the fact that the monetary and the ER policies are sacrificed inside the monetary union, the countries should work out alternative adjustment mechanisms, labor mobility and the flexible labor market being one of them, which is stressed within the optimum currency area (OCA) theory (Mundell, 1961). Internal devaluation within the monetary union is inherently difficult, but the situation could even be worse due to the rigidness of the labor market as an obstacle to the internal devaluation mechanism (Wood, 2014). It prevents the functioning of market forces (rising unemployment) in lowering nominal wages. In addition to the aforementioned obstacles, even if the nominal wages are expected to fall in line with a reduction in employment, there is yet an obstacle in the relation between nominal wages - the prices of domestic products. Due to insufficient competition on the commodity markets in certain deficit countries, the prices of domestic products do not fall simultaneously with nominal wages. More broadly speaking, the EZ was not created as an OCA. Labor is largely immobile for linguistic and cultural reasons, as well as for the personal and social costs of migration. The EU members are, however, open to trade, and capital is highly mobile. Even though the EZ may not have been created as an OCA *ex ante*, there are indications that it is moving in that direction ex post (Rose, 2008; Furrutter, 2012).

CONCLUSION

This paper highlights crucial challenges on the monetary path of the emerging EU members towards the euro zone (EZ). Progress towards the monetary union is observed through three stages, starting from the EU accession stage, via the pre-EZ stage, to ultimately the stage of the EZ participation at the end of monetary convergence. Emerging European Economies (EEEs) adopted different monetary and ER strategies. However, there are two different monetary approaches that fundamentally can be identified. The one monetary framework assumes ER targeting as a monetary regime in which the ER serves as a nominal anchor, whereas the monetary policy is not autonomous. The other monetary framework combines inflation targeting (IT) with a flexible ER, where the ER serves as a shock absorber, whereas the monetary policy is free to act in a countercyclical manner. Independently of the initially implemented monetary framework, after the EU accession EEEs are, sooner or later, obliged to participate in the ERM II, the target zone in which monetary autonomy is significantly narrowed. The hypotheses were examined in the case of the two groups of countries. Poland, the Czech Republic and Hungary are the EU members at the second stage of monetary convergence that hesitate to enter the ERM II. Narrowed monetary flexibility is certainly the key reason since these economies performed better under a crisis impact. By analyzing the crucial macroeconomic indicators of the mentioned economies, it is confirmed that the floaters generally performed better, bearing in mind fewer internal and external imbalances in the situation where the ER serves as a buffer against external shocks. On the contrary, it is confirmed that the Baltic States, as an example of the emerging EU members which followed the opposite monetary path, experienced a deeper macroeconomic imbalance, as well as more profound internal and external adjustments in the post-crisis period. The monetary autonomy of these economies is otherwise limited since these are small and open economies where the benefits of the adoption of the euro prevail. On the other hand, Poland, the Czech Republic and Hungary (as well as the other EEEs that followed their monetary path towards the EU and the EZ) have much to lose in terms of monetary sovereignty, whereas inherent EZ weaknesses make the decision even more complicated. Therefore, the policy makers of the integration policies towards the EU and the EZ must bear in mind the significant economic sacrifice of a deeper monetary integration and the need for preparedness for functioning within the rigid monetary framework. Sustainable

nominal and real convergence are the imperative of a deepening monetary integration with the EZ countries represents. Regardless of the common monetary framework at the third stage of monetary convergence, the external position and adjustment still depend on the individual macroeconomic performances of the EZ members and on the disciplined use of the remaining instruments of the economic policy as well. In spite of the identification of the general framework and the indications regarding the subject matter of the research study, future research should be directed towards the analysis of individual countries with respect to the choice of the exchange rate and monetary regimes at the considered stages of monetary convergence. Various econometric techniques ranging from the VAR and VEC models within the framework of time-series analysis to nonstationary heterogeneous panels could be applied in order to further clarify the choices made by the economic policy makers of individual emerging EU members on the road towards the EZ.

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THE IMPLICATIONS OF THE ELECTRONIC WORD-OF-MOUTH COMMUNICATION IN CHOOSING A WELLNESS OFFER

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In the conditions of the dynamic development of information and communications technology, the traditional way of establishing communication among consumers has significantly changed. As one of several extremely important marketing instruments, word-of-mouth communication has been assuming a new dimension via digital forms of communicating. Having in mind the significance of social media for the formation of consumer attitudes and intentions concerning the purchasing process, the paper is aimed at obtaining relevant findings on the effect of electronic word-of-mouth communication on consumer behavior. More precisely, by using a correlation and multiple regression analysis, whether the quantity, quality and timeliness of information, and the source credibility of electronic word-of-mouth communication affect consumer trust in the area of a wellness offer was examined. A simple regression analysis was applied in order to determine whether consumer trust contributed to purchase intention. The results of the conducted empirical research show that there is a statistically significant impact of electronic word-of-mouth communication on consumer trust and that consumer trust positively affects purchase intention when choosing a wellness package in the Republic of Serbia is concerned.

Keywords: electronic word-of-mouth communication, consumer attitudes, purchasing behavior, social media, wellness offer

JEL Classification: M31, D830, I0

INTRODUCTION

The traditional forms of marketing communications are losing their effectiveness in the framework of the consumer behavior characterized by great dynamism (Trusov, Bucklin & Pauwels, 2009), which is precisely why word-of-mouth (WOM) communication is listed as a powerful marketing instrument. The word-of-mouth communication process involves communication between the sender and the receiver, which refers to a product, brand or service (Senić & Senić, 2008). As one of the oldest forms of obtaining information in the process of searching for, choosing and using products or services, word-of-mouth communication enables the transfer of shopping experiences to other people (Stanković and Đukić,

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2014). Lately, as a consequence of companies' endeavors to position themselves in a competitive market, there has been almost no business entity not using some forms of digital marketing in their business strategies, which is the reason why the field of communications has also been spreading into the online environment. That is why classic WOM communication is increasingly being replaced with electronic word-of-mouth communication. An increasing number of consumers make their decisions concerning their purchase based on the information created and posted by other consumers in an online environment (Hu, Bose, Koh & Liu, 2012). Namely, with the intensification of the use of Internet technologies, the way in which people read, write, collect information and share experiences is changing (Casaló, Flavián & Guinalíu, 2011). According to the latest research, 72.9% of households in the Republic of Serbia own an Internet connection port, which is an increase of 4.9% compared to 2017, and an increase of 8.2% compared to 2016. Around 73% of them have used the Internet in the past three months (Statistical Office of the Republic of Serbia). In virtual communities, people exchange experiences, form friendships and share information (Wu, Chen & Chung, 2010). It is exactly for that reason, especially in the tourism sector, that the role of electronic word-of-mouth communication has been ever-increasing. The intensive application of electronic word-of-mouth communication primarily reflects on the service sector, thus affecting consumer purchasing behavior when opting for tourist offers and accommodation capacities (Sa'ait, Kanyan & Fitri Nazrin, 2016). The potential users of certain tourist destinations carry out a cost/benefit analysis of alternative destinations, whereby they use electronic word-of-mouth communication as one of the external sources of information (Abubakar, 2016). This paper intends to test the effect of electronic word-of-mouth communication in the context of social media, disregarding their specific points. Therefore, in the context of conducting the research study, the term 'social media' implies numerous kinds of content on the Internet, such as forums, blogs, websites for exchanging experiences and all other virtual forms contributing to emphasizing communication among consumers.

The subject matter of the paper refers to examining the impact of electronic word-of-mouth communication through the characteristics of a message, as well as its source, on the creation of trust and an increase in the intention of purchasing behavior when speaking about a wellness offer. Having in mind the specificity of wellness packages as one of the modern forms of tourism, the analysis of the relevant literature has shown that there are an insufficient number of the research studies targeting the matters of electronic word-of-mouth communication in this field. Taking into consideration the indicators that show a growing trend of the wellness offer, marketing potentials are extremely important in the analysis of this problem area. Since ever-higher budgets are being allocated for wellness activities, this field certainly contributes to the development of the tourism offer in the future. Relying on the already identified connection between electronic word-of-mouth communication and consumer purchasing behavior in the tourism offer (Albarq, 2014), the research study was conducted on the territory of the Republic of Serbia. Some of the specific aims of the research study include the following:

- to examine whether the quantity, quality and timeliness of information in electronic word-of-mouth communication affect consumer trust in wellness packages;
- to reach relevant findings on whether the source characteristics in electronic word-of-mouth communication, more precisely implying credibility, affect consumer trust in wellness packages;
- to ascertain whether there is a statistically significant effect between consumer trust and purchase intention when choosing a wellness offer.

The theoretical and methodological set of instruments in the paper involves the application of the methods of analysis and synthesis, as well as a descriptive study and interpretation of the results. Also, the survey method was applied in order to carry out empirical research. In order to test the defined hypotheses, reliability analysis, correlation analysis, and multiple and simple regression analyses are used.

The paper is so structured that the theoretical terms concerning the basic trends in the field of wellness tourism, as well as the variables predominantly defining electronic word-of-mouth communication, are elaborated on after the introductory considerations by conducting a content analysis t. In accordance with the existing theoretical overview and the results of the previous research, several hypotheses are formulated in this paper. The following segment shows the methodological framework, defines the conceptual research model and elaborates on the results of the empirical research. In the last research segment, the conclusions, as well as the limitations and future directions specific to the research problem, are presented.

The originality and value of the research study arise from the fact that there are an insufficient number of the papers in the Republic of Serbia related to the examination of the individual variables of electronic word-of-mouth communication in the given field. Although the role of this form of communication was examined in the previous research frameworks in general, the wellness industry is undoubtedly a topic insufficiently researched from this aspect.

LITERATURE REVIEW

The Characteristics of Wellness Tourism

As a relatively new form of health tourism (Težak Damijanić & Šergo, 2014), the wellness industry has increasingly been catching the attention of marketing experts. Wellness packages refer to the proactive side of the users, including their attitudes towards preventing diseases, improving health and maintaining the quality of life. According to H. Mueller and E. Kaufmann (2001), wellness is defined as "a state of health featuring the harmony of body, mind and spirit, with self-responsibility, physical fitness/beauty care, healthy nutrition/diet, relaxation (need for distressing)/meditation, mental activity/education and environmental sensitivity/social contacts as fundamental elements".

Considering the intensification of investment in wellness packages in the Republic of Serbia, starting from the first wellness center in Vrnjačka Banja in 2005, it is of crucial importance that the manner in which modern tendencies in marketing, such as electronic word-of-mouth communication, affect consumers' choices should be considered. The communication channels using the Internet are the most important distribution channels in the field of wellness tourism, which is the reason why the potential for commercialization by using online platforms is the field with plenty of room for research. Bearing in mind the fact that the wellness offer is primarily aimed at improving the quality of life and achieving a harmony, rather than a classic treatment (Koncul, 2012), this form of tourism may be suitable for electronic word-of-mouth communication amongst potential or current users. The potential users of tourist packages rely on the information obtained from the online environment, bearing in mind the fact that a tourist product is not available up to the moment of its actual usage, which is why risk and uncertainty are greater (Abubakar, 2016).

The Conceptual Foundations of Electronic Word-of-mouth Communication

Today, in the era of the development of information and communication technology, classic word-of-mouth communication (WOM) is analyzed through the digital environment. Having in mind an increasing number of Internet users, business entities in numerous fields have recognized the significant possibilities that come alongside digitalization. The use of digital content is no longer a matter of choice, but rather a matter of necessity, which is often the key to the existence in an increasingly competitive market. Electronic word-of-mouth communication is defined as "any positive or negative statement made by a potential, actual or former customer about a product or company, which enables the exchange of attitudes among individuals or institutions using Internet platforms" (Hennig-Thurau & Walsh, 2004). Electronic word-of-mouth communication can be realized in a completely digital environment, no matter whether social networks, websites for sharing

interactive content, microblogs, forums and all the other forms that contribute to the exchange of experiences, opinions and attitudes of the users of different products and services are in question. The impact of electronic word-of-mouth communication on consumer purchasing behavior is the subject of numerous research studies (Fan & Miao, 2012; Prasad, Gupta & Totala, 2016). This form of exchanging consumers' experiences and knowledge significantly defines their purchasing behavior (Marinković, Senić, Obradović & Šapić, 2012). That is the reason why it is extremely important for the creators of marketing strategies to properly consider the significance and potential of this form of communication. The easier availability of online comments, as well as anonymity in the exchange of attitudes and experiences, are just some factors emphasizing the significance of electronic word-of-mouth communication compared to traditional communication in an offline environment (Bellman, Johnson, Loshe & Mandel, 2006). The fact that, in comparison with traditional communication, electronic word-of-mouth communication communication is not limited to a small number of users, but it has a great reach and can involve a significant number of online users, is stated as one of the main characteristics which the advantage of electronic word-of-mouth communication is based on (Hennig-Thurau, Gwinner, Walsh & Gremler, 2004). According to some research studies (Xiaorong, Bin, Qinghong, Liuli & Yu, 2011), electronic word-of-mouth communication greatly decreases the consumer distrust associated with online shopping which may arise from the perceived risk or insufficient and asymmetrical information. This paper lists some of the most commonly analyzed criteria as the key factors that characterize the information posted by using electronic word-of-mouth communication. These are the quality of the message, the quantity and timeliness of information.

The Quantity of Information in Electronic Word-of-Mouth Communication

Bearing in mind the intangible nature of products or services in the virtual environment, when consumers need to make a choice, it is very important for them to have as much information as possible at their disposal, i.e. the comments which would decrease their risk when making a decision. One of the variables examined in the paper is the quantity of information. Starting from the prior research, whether a greater number of available information in electronic word-of-mouth communication strengthens consumer trust and affects the decision concerning the choice of a certain wellness offer or not will be examined. According to the research targeting this field, consumer trust is intensified if a larger number of users leave a comment in electronic word-of-mouth communication (Xiaorong, Bin, Qinghong, Liuli &Yu, 2011). That is why the following hypothesis will be tested for the purpose of examining this variable when choosing a wellness offer:

H1: The quantity of information in electronic word-of-mouth communication has a positive and statistically significant impact on consumer trust when choosing a wellness offer.

The Quality of Information in Electronic Word-of-Mouth Communication

The variable that is most frequently an inseparable part of research alongside the quantity of information is the quality of electronic word-of-mouth communication. Even in papers from an earlier period, the quality of information was defined as a significant indicator of the success of information systems (Fan, Miao, Fang & Lin, 2013). Most authors have a unified position that the quality of information is one of the key determinants directing the consumer's decision when choosing a certain product or service. So, for instance, Y. W. Fan *et al* (2011) point out that the quality of electronic word-of-mouth communication is exactly the factor affecting consumer trust most and that the online comments containing enough arguments and facts are crucial to consumer trust. Based on the given theoretical overview, the second hypothesis is defined:

H2: The quality of information in electronic word-of-mouth communication has a positive and statistically significant impact on consumer trust when choosing a wellness offer.

The Timeliness of Information in Electronic Word-of-mouth Communication

Taking into consideration the dynamic nature of the virtual environment, consumers are exposed to the updated content which is of interest to them on a daily basis. The timeliness dimension, i.e. the period from the moment when a message was created online to the moment it is used by another potential user, is mentioned as one of the factors defining electronic word-of-mouth communication. Timeliness is defined as the period that passes from the moment when a user leaves a comment in electronic word-of-mouth communication to the moment when a potential user consults the same comment when making a choice. The research study conducted in 2017 confirms that the more recent the comments, the higher the degree of the trust of the potential users of tourist services (Coursaris, Van Osch & Albini, 2017). With respect to the said, the third hypothesis is defined:

H3: The timeliness of information in electronic word-of-mouth communication has a positive and statistically significant impact on consumer trust when choosing a wellness offer.

Source Credibility in Electronic Word-of-Mouth Communication

In addition to the characteristics of the message, which have been explained by using the three given dimensions, the source credibility in electronic word-of-mouth communication can be one of the determinants of consumer trust (Lopez & Sicilia, 2014). This is one of the variables that has a positive effect on consumer purchasing behavior (Shuqair, Cragg, Zaidan & Mitchell, 2016), which has also been confirmed through the research studies conducted on the territory of Serbia, Croatia and Bosnia and Herzegovina (Kursan, Milaković, Mihić & Ivasečko, 2017). For that reason, this paper will determine the effect the sources of information have on trust and purchasing behavior, together with the characteristics of information in electronic word-of-mouth communication in the process of choosing a wellness offer. Some factors that have a dominant impact on consumer trust refer to the competences, truthfulness and good intentions of the source of the message (Flavián, Guinalíu & Gurrea, 2006; Casaló, Flavián & Guinalíu, 2011). The aim is to investigate whether the consumer trust created through these variables affects purchasing behavior when choosing a wellness offer. In terms of truthfulness, it refers to the belief that other members, i.e. participants, in electronic word-of-mouth communication will keep their word, fulfill their promise, i.e. that they will be truthful in communicating in an online environment with other participants (Casaló, Flavián & Guinalíu, 2011). Good intentions refer to the altruistic motive and involvement in electronic word-of-mouth communication with the intention to help and support, i.e. to demonstrate care for other participants (Wu, Chen & Chung, 2010). In an online environment, the members should answer other users' questions and proactively consider what their wishes and needs are (Wu, Chen & Chung, 2010). When speaking about competence, i.e. expertise, it is also one of the variables that affect consumer trust. It is defined as a perceived level of skills and knowledge in the process of electronic word-of-mouth communication shown by other participants (Coulter, Coulter, 2002). Even though there are numerous research questions aimed at investigating the given field, there is little research investigating these relations in the territory of the Republic of Serbia. There is a significant effect between the consumer trust defined through these three dimensions and purchasing behavior in the field of the tourism offer, especially when selecting destinations is concerned (Curras-Perez, Ruiz, Sanchez-Garcia & Sanz, 2017). That is why companies in the tourism sector should strive to increase consumer trust in the online environment.

H4: The source credibility in electronic word-of-mouth communication has a positive and statistically significant impact on consumer trust when choosing a wellness offer.

Trust and Purchase Intention

In an online environment, a product cannot be touched, felt, and one cannot look the clerk in the eye (Gommans, Krishnan & Scheffold, 2001). Consumer trust is another key variable that affects consumer

purchasing behavior (Alfina, Ero, Hidayanto & Shihab, 2014). When electronic word-of-mouth communication is in question, trust is a relevant factor determining a decision when making a choice, because electronic written words are formal and considered as more truthful (Marić, Kovač Žnideršić, Paskaš, Jevtić and Kanjuga, 2017). Namely, it has been proven that exactly those websites which consumers trust most have the biggest success in the online environment (Prasad, Gupta & Totala, 2017). According to the research, there is a higher degree of trust in the online comments written by the other users of the offer compared to those written by experts (Belarmino & Koh, 2018). Because of the intangible nature of services in the tourism sector, most users base their choice precisely on the pieces of information posted in electronic word-of-mouth communication. M. Kimery and M. Mc Cord (2002) point out that trust in an online environment helps to decrease the risk which the consumer is faced with. By means of using an in-depth interview, S. Prasad, I. Gupta and N. Totala (2017) explain that the effect of electronic word-of-mouth communication on purchase intention is realized exactly through consumer trust. In marketing research, intention in behavior refers to a high probability of expressing a certain type of behavior (Sapic, 2017). Purchase intention in an online environment, which is characterized by a higher degree of uncertainty and risk, is often directly influenced by the level of consumers' confidence. In accordance with the results of the previous research, trust is directly related to purchasing behavior (Xiaorong, Bin, Qinghong, Liuli & Yu, 2011).

H5: Consumer trust in electronic word-of-mouth communication has a positive and statistically significant impact on purchase intention when choosing a wellness offer.

RESEARCH METHODOLOGY

Starting from a detailed elaboration of the theoretical concepts, empirical research was conducted in this paper. The research was aimed at examining the connection between electronic word-of-mouth communication and consumer trust, and analyzing trust as a determinant of purchasing behavior when choosing a wellness offer. In order to collect data, a questionnaire was distributed to the respondents in the territory of Kragujevac in a classic form, and the respondents were supposed to fill in the question sheets. The survey was conducted by using a simple random sample through direct contact with respondents. A total of 150 questionnaires were distributed, out of which 124 questionnaires are valid with a high response rate (82.7%). Empirical research was carried out by applying the survey method in the period from August to October, 2018. In order to obtain valid results, the data were filtered out by taking into consideration only those respondents who had pointed out that they had previously used some wellness packages in the Republic of Serbia. The questionnaire was structured in such a way that it contained, first of all, general information, such as: sex, age, education and the working status, then the conclusions connected with all the variables examined. The respondents expressed the degree of their respective agreement upon the findings stated in the questionnaire by means of a five-point Likert scale (number 1 - I do not agree at all, number 5 - I absolutely agree), which is one of the methods most commonly used to make valid conclusions in this type of research.

The variables used in the questionnaire were measured by the constatations that were taken and adapted according to the research needs. The quantitative and qualitative information related to electronic word-of-mouth communication was adapted and adjusted according to (Lin, Wu, Chen, 2013). The timeliness of the information in electronic word-of-mouth communication was evaluated by means of the statements formulated based on the author (Sa'ait, Kanyan & Fitri Nazrin, 2016), whereas the credibility of the source was adjusted according to the findings (Kursan Milaković, Mihić and Ivasečko, 2017). Consumer trust was evaluated through the constatations tailored to the research study (Zainal, Harun & Lily, 2017), whereas the intention to purchase wellness packages was evaluated through the findings adapted to (Abdelaziz, Aziz, Khalifa & Ma'youf, 2015). In order to examine the relationship between the observed variables, the hypotheses

were tested by using descriptive statistics, reliability analysis, correlation analysis, and free and multiple regression. The impact of the four analyzed variables on consumer trust was examined through multiple regression, whereas the impact of trust on purchasing behavior when making a choice of wellness content was tested through simple regression analysis. The data analysis was performed in the statistical package for social sciences (The Statistical Package for the Social Sciences-SPSS, version 21) and Eviews 7. Taking into account the defined variables, the research model shown in Figure 1 was defined for the purpose of the research in accordance with the theoretical examination and the hypotheses set.

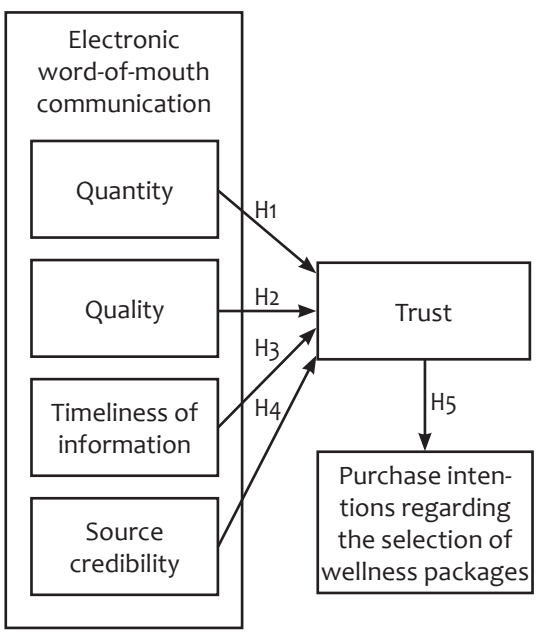

Figure 1. The conceptual model of the research

Source: Authors

RESEARCH RESULTS

The survey included 124 respondents of different demographic profiles presented in Table 1.

Based on the demographic structure of the respondents, it can be noticed that the percentage of the female respondents is higher (57.3%). When the age factor of the interviewees is concerned, the majority of the respondents belong to the age category ranging from 25 to 31, whereas the fewest respondents are over the age 60 (7.3%). Also, the table shows that the highest percentage of the respondents account for those with higher education (40.3%), whereas among the employed, the largest number of them are clerks (24.2%), and the retired are the least present in our sample (4.8%).

In the initial steps of our research, the results of the analysis of the descriptive statistics were presented in order to examine the benefits and homogeneity, i.e. the heterogeneity of the respondents' attitudes. By observing Table 2, it can be noticed that the value of

Table 1 The demographic structure of the respondents

Demographic profile	Frequency	%
Gender		
Male	53	42.7
Female	71	57.3
Age		
18-24	16	12.9
25-31	27	21.8
32-38	20	16.1
39-45	19	15.3
46-52	16	12.9
53-59	17	13.7
60 and older	9	7.3
Education		
Elementary education	2	1.6
Secondary education	38	30.6
Higher education	34	27.4
College education	50	40.3
Working status		
Student	14	11.3
Manager, Entrepreneur	26	21.0
Professor, Medical doctor, Engineer	22	17.7
Clerk	30	24.2
Worker	26	21.0
Retired person	6	4.8

Source: Authors

Table 2 The results of the descriptive statistics for the given constatations

Constatation	Arithmetic mean	Standard deviation
Quantity		
The more online comments there are. the more popular a wellness offer is.	4.12	0.694
The more online comments there are. the better sales can be achieved by the wellness offer.	4.08	0.739
A large number of the comments which are highly rated and recommendations in the online environment show that the wellness offer has a good reputation.	4.19	0.679
Quality		
It is important to me that online comments on wellness offers are clear.	4.36	0.629
It is important to me that online comments on wellness offers are understandable.	4.42	0.613
It is important to me that online comments on wellness offers are useful.	4.44	0.629
Generally speaking. it is important to me that the quality of the comments regarding the wellness offer is high.	4.48	0.631
Timeliness of information		
It is important to me that the online comments on wellness offers are as current as possible.	4.21	0.641
It is important to me that online comments on wellness offers are new. i.e. in accordance with the current trends.	4.25	0.670
It is important to me that online users' comments on a wellness offer are up-to-date and valid.	4.27	0.639
Source credibility		
When choosing a wellness offer. I can trust the information I obtain from other users in the online environment.	4.06	0.695
I believe that other users in online communication give honest comments on wellness packages.	4.00	0.721
I believe that other users in online communication give useful comments on wellness packages.	4.02	0.743
Trust		
Participants in online communication are competent when discussing wellness offers.	4.12	0.645
Most of the other users of wellness packages in the online environment do not give false comments.	4.02	0.715
I believe that I can trust the online comments given by other wellness users.	3.96	0.726
The users of wellness packages take into account the needs of other members when writing online comments.	4.08	0.705
Purchase intention		
Previous online comments on the wellness offer affect my willingness to book it.	4.27	0.629
When I think that a wellness offer is as good as is described in online comments. I am ready to book it.	4.33	0.634
My choice of a wellness offer is based on the online comments I read.	4.37	0.618
The information I obtain in online communication affects my choice of wellness offers.	4.35	0.612

Source: Authors

the arithmetic mean is high for all the constatations, with the highest value referring to the fact that it is important for the respondents to have high quality online comments (the arithmetic mean being 4.48), whereas the lowest value of the arithmetic mean refers to trust in the online comments provided by the other users of wellness packages (3.96). Regarding the homogeneity of the respondents' attitudes, the highest degree of agreement, i.e. the lowest value of the standard deviation (0.612), was observed in the statement regarding the intention to purchase the wellness content based on the information obtained online, whereas the highest heterogeneity of the respondents' attitudes, i.e. the largest standard deviation, was observed in the constatation realting to the statement that the other users in online communication give useful comments when with respect to choosing a wellness offer (the standard deviation being 0.743).

In order to test the reliability and internal consistency of the constatations defined in the paper, the value of Cronbach's alpha coefficient was calculated for all the observed variables. Since the acceptable value of this coefficient is higher than 0.7 (Nunnally, 1978), by observing Table 3, a conclusion can be drawn that all of these variables fulfill the given criterion.

After the examination of internal consistency, a correlation matrix was presented so as to examine the strength and direction of the connection among the observed variables. By considering the value of the Pearson coefficient, it can be concluded that there is a correlation between all the variables, but its intensity is different. Based on Table 4, there is a positive correlation between the quantity, quality and timeliness of information and the source credibility, individually, and consumer confidence. A high correlation (the value of the correlation coefficient being 0.634) is observed between the credibility of the source in electronic word-of-mouth communication and trust, whereas the correlation of the mean strength (the correlation coefficient value being 0.479) is observed between the quality of electronic word-of-mouth communication and consumer confidence. Also, there is a strong correlation between consumer confidence and purchase intention (the correlation coefficient being 0.668).

Table 3 The value of Cronbach's alpha coefficient

Variable	Cronbach's alpha
Quantity	0.878
Quality	0.924
Timeliness of information	0.813
Source credibility	0.880
Trust	0.876
Purchase intention	0.812

Source: Authors

Table 4 The correlation matrix

Variable	1	2	3	4	5	6
Quantity	1	0.652**	0.526**	0.589**	0.599**	0.555**
Quality	0.652**	1	0.524**	0.469**	0.479**	0.395**
Timeliness of information	0.526**	0.524**	1	0.546**	0.598**	0.597**
Source credibility	0.589**	0.469**	0.546**	1	0.634**	0.504**
Trust	0.599**	0.479**	0.598**	0.634**	1	0.668**
Purchase intention	0.555**	0.395**	0.597**	0.504**	0.668**	1

Source: Authors

In order to examine the common influence of the observed variables on consumer trust in electronic word-of-mouth communication, a multiple regression analysis was used. Just before the presentation of the results of the conducted analysis, the starting assumptions had been tested as a prerequisite for the implementation of the analysis. The diagram of the diffusion of the standardized residuals showed that the results were approximately rectangularly distributed and that most results were piled up in the center, which means that the assumption of linearity is not deformed. Apart from the assumption related to the size of the sample, which was met, normality and homoscedasticity had been examined prior to applying a regression analysis in the Eviews 9 program. When testing the normality of the residual deviations are concerned, the Jarque-Bera test was done. The value of the statistics of this test is 0.189299, and $p = 0.91 > \alpha = 0.05$, which implies that the empirical arrangement can be approximated by a normal one. The model also examined the homoscedasticity of the residual deviations. The value of the F statistics is 1.914933, $p = 0.11 > 0.05$, which indicates that there is no heteroscedasticity in the examined regression model.

After the examination of the initial assumptions, the multiple regression model was applied, where the dependent variable was trust, and the independent variables were the quantity, quality and timeliness of information and the source credibility. The model indicators are shown in Table 5.

Table 5 The indicators of the multiple-regression model

R	Adj.R Square	St. error	F	Sig
0.729	0.516	0.41517	33.770	0.000

Source: Authors

The observed model is representative (Sig = 0.000), the value of the adjusted determination coefficient is 0.516, which shows that 51.6% of the variability of the dependent variable of trust is explained by the four independent variables. Having in mind the fact that multiple-regression analysis often causes the problem of multicollinearity, a variance inflation factor – VIF is shown. Its value, which is lower than 5, for all the variables shown confirms that there is no multicollinearity problem in the regression model (Table 6). By looking at the results in Table 6, it can be noted that the variable of the source credibility in electronic word-of-mouth communication individually contributes to the trust of the users of the wellness offer (ß = 0.327), only to be followed by the timeliness of information in electronic word-of-mouth communication (ß = 0.280), as well as the quantity of information (ß = 0.247). The variables of the quantity and timeliness of information and the source credibility make a unique contribution to the predictions of the dependent variables, i.e. trust, whereas this is not the case when the quality of electronic word-of-mouth communication is in question ($p > 0.05$).

Table 6 The results of the multiple regression analysis (the dependent variable is trust)

Variable	ß	T	Sig.	VIF
Quantity	0.247	2.683	0.008	2.159
Quality	0.018	0.205	0.838	1.890
Timeliness of information	0.280	3.456	0.001	1.672
Source credibility	0.327	3.955	0.000	1.738

Source: Authors

Based on the regression analysis applied, the following hypotheses were confirmed: H1, H3 and H4, whereas H2 cannot be accepted.

The following steps in the research study involve conducting simple regression analysis, where the independent variable is consumer trust, and the dependent variable is purchase intentions regarding the use of wellness content. The indicators of the applied regression model are accounted for in Table 7.

Table 7 The results of the simple regression analysis (the dependent variable is purchase intention)

Adj.R Square	F	Sig(F)	ß	T	Sig.
0.441	98.166	0.000	0.668	9.908	0.000

Source: Authors

As can be seen, the presented model is representative, the adjusted determination coefficient 0.441 showing that 44.1% of the variability of variable purchase intention is explained by the 'trust' variable. Also, based on the value of ß = 0.668 and p = 0.000, it can be concluded that the impact of trust in electronic word-of-mouth communication on purchase intention regarding the use of wellness packages is very strong. Based on everything previously stated, H5 can be confirmed.

CONCLUSION

The permeation of Internet technologies into almost all aspects contributes to the fact that the classic marketing communication instruments that shape purchasing behavior have significantly changed. Hence, instead of the traditional forms, the focus is placed on contemporary ones, such as electronic word-of-mouth communication. The role of electronic word-of-mouth communication, especially in the tourism sector, is very important and largely determines consumer purchase intention. By reducing risk and uncertainty, electronic word-of-mouth communication is one of the crucial sources of information. As is emphasized in the paper, electronic word-of-mouth communication in the wellness industry is one of the determining factors when the purchasing behavior of the users of these tourist arrangements is concerned. Starting from the primary goal set in the paper, the authors' intention was to examine whether the variables related to the quality, quantity and timeliness of information and the source credibility have an impact on consumer trust in electronic word-of-mouth or not, and also to determine whether the trust of the users of wellness packages contributes to purchasing behavior.

Based on the conducted empirical research, it was noticed that the quantity of information, the timeliness of information and the source credibility of messages in electronic word-of-mouth communication have a positive impact on consumer trust, which is in accordance with the previous research (Xiaorong, Bin, Qinghong, Liuli & Yu, 2011, Coursaris, Van Osch & Albini, 2017, Wu, Chen & Chung, 2010), whereas the quality of information does not have a statistically significant impact. According to the conclusions reached by other researchers, customer confidence significantly determines purchase intention (Prasad *et al*, 2017). The creators of a tourist offer, especially wellness packages, should create a possibility of exchanging information among users because it provides a higher level of trust than the data provided by the company itself do. The social justification for the research refers to the possibility that both companies and consumers in the field of using wellness packages affect the trust of other users in the communication process.

Empirical research refers to certain managerial implications. This type of analysis can help the development of the tourism sector, i.e. the wellness industry to be more precise, the acceleration of electronic word of mouth communication and the analysis of consumer behavior in the online environment. Encouraging users to share information in this way would be of a greater benefit to both wellness and content creators. Increasing the availability of current online reviews increases consumer confidence, which very often is the key to successful market positioning.

The limitations of the conducted empirical research primarily refer to the fact that it was carried out in the territory of the City of Kragujevac, so in the following research the territory to be examined should be expanded. Then, in one of the next research steps, the forms of social media in electronic commerce that have a dominant influence on consumer behavior in electronic word-of-mouth communication and

whether users show different preferences for different types of wellness tourism offers or not should be defined. Having in mind the fact that, depending on the profile of the respondents, the readiness for electronic word-of-mouth communication differs, whether there are statistically significant differences between younger and older respondents and their purchasing behavior should be subjected to examination.

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SUSTAINABLE INTEGRAL DEVELOPMENT OF AGRICULTURE AND TOURISM IN THE REPUBLIC OF SERBIA

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Sustainable development is one of global imperatives and it involves the harmonization of economic, environmental, and social development goals, with an appropriate institutional support. There are plenty of resources pertaining to the sustainable development of agriculture and tourism, as numerous studies and practical examples worldwide confirm. The paper highlights the example of the Republic of Serbia and can be of use for other countries with similar resource potentials and developmental constraints. Namely, agriculture and tourism in the Republic of Serbia are distinguished by abundant natural and cultural-historical resources, but what mostly lacks are funds for serious investment, as well as a modern and holistic approach to development, so the available resources are insufficiently used. Accordingly, the research aims to point to the necessity of a more creative use of agro-tourism resources, i.e. to the more promising directions of the integral development of agriculture and tourism on sustainable grounds. The paper results highlight the extreme importance of institutional support to agriculture and tourism networking within the concept of sustainable development.

Keywords: sustainable development, integral development, agriculture, tourism, the Republic of Serbia

JEL Classification: Q01, Q19, Z32

INTRODUCTION

There is no generally accepted definition of sustainable development, but studies usually cite the Brundtland Commission definition (WCED, 1987), which defines sustainable development as a development that allows satisfying the needs of the present generations without compromising the needs of future generations. Given the fact that this study focuses on the Republic of Serbia (RS), it is important to note that the National Sustainable Development Strategy of RS sees sustainable development as a goal-oriented, long-term, continuous, comprehensive and synergetic process that affects all aspects of life (Vlada Republike Srbije, 2008).

Sustainable development is one of the most popular contemporary phenomena, especially within the United Nations (UN) activities, or the Sustainable Development Agenda until 2030. It aims to balance numerous economic, environmental, and social development goals, and highlights the importance

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of the institutional component. In this regard, the sustainable development of agriculture is considered necessary. The European Union (EU) is a good example of a pronounced tendency towards sustainable agricultural development both in the past decades and today through the implementation of the Common Agricultural Policy 2014-2020, as well as the new concept planned for the period after 2020. Except in Europe, other areas around the world also seek to ensure sustainable agricultural development. This approach to agriculture is of great importance to RS, especially in terms of the integral development of agriculture and tourism.

The UN General Assembly marked 2017 as the year of sustainable tourism development in order to support changes in the tourism development policy and thus contribute to the realization of SDGs (Sustainable Development Goals). The World Tourism Organization (UNWTO), a specialized UN agency for tourism, is tasked with the organization and implementation of such plans in the best possible way (UN, 2016). Since tourism development has global significance, the sustainable use of tourism resources is very important. This is of particular importance for the individual countries and regions, such as Europe, most visited by tourists, only to be followed by Asia and the Pacific, then America, while Africa and the Middle East record a significantly smaller number of tourists. Sustainable tourism development is considered particularly important for world leaders in tourism, such as France, the United States, Spain, China, Italy, the United Kingdom, Germany, Mexico, Thailand, etc. (UNWTO, 2017). This paper analyzes RS and its unfavorable position on the world tourism market as a result of a series of national and international constraints. Considering the natural resources and the cultural and historical heritage Serbia has, the paper tests the possibility of overcoming certain constraints, through a greater integration of tourism and agriculture.

The benefits of the integral development of agriculture and tourism or their interconnectedness are observed all over the world, especially when tourism includes specific agro-food products in its offer. In this regard, the issue of organic products is of particular relevance. Some studies and reports by renowned international organizations responsible for global development issues propose the concept of the integral development of organic agriculture and tourism in the fight against poverty.

Agricultural and food products are an irreplaceable and complementary part of the tourist offer even in the world's most famous tourist destinations, where food and drinks are not the main motives for tourist arrivals.

A rise in the number of tourists in a certain area or a rise in tourist spending stimulates the production of food and drinks for tourists' needs, contributing to the development of the agro-food sector.

In the cause-and-effect chain of agro-tourism development, development initiatives can come from both sectors simultaneously or individually.

Based on the above, the research subject in this paper are the key aspects of the sustainable integral development of agriculture and tourism in RS, or insufficient commitment to this issue, followed by an unfavorable situation in practice, as well as the importance of taking a more modern approach, adapted to the specifics of and needs for the integral development of domestic agriculture and tourism.

The research objective is to point to the necessity of a more creative use of agro-tourism resources in RS, i.e. the more promising directions of the integral development of agriculture and tourism on sustainable grounds. The positive effects that can be expected from such an approach are as follows: a rise in the volume of agricultural production, tourist arrivals and overnight stays; a higher quality and attractiveness of agro-food and tourism products; growth in revenue from agriculture and tourism, as well as the accompanying activities, directly or indirectly related to agriculture and tourism; employment growth in the agro-food sector, tourism and the rural economy, with their growing share in the GDP and exports; the diversification of agricultural production, the non-agricultural rural economy, and the tourist offer; a reduction in poverty and the social exclusion of the population, while improving the

demographic picture of the areas in which agriculture and tourism develop in the long term and integrally.

In accordance with the research subject and objective, the paper tests the following starting hypotheses:

H: If the Republic of Serbia institutionally supports the more intensive networking of agriculture and tourism within the implementation of the sustainable development concept, one can expect more favorable economic effects of the development of the agro-food sector, tourism, and rural economy in general.

The qualitative and quantitative research methods relevant to social sciences, i.e. studies in the field of economics are used in the paper, namely: the historical method, the methods of induction and deduction, analysis and synthesis, comparison, description, the statistical method and the generalization method, as well as SWOT analysis.

The paper consists of five parts. After the introduction, the second part gives an overview of the literature relevant for the research problem in question, whereas the third part points to the research methods used. The fourth part presents the research results, i.e. the general features of Serbian agriculture relevant in tourism terms, as well as the key indicators of tourism development, important for the agricultural activity, emphasizing the possible directions of the future integral development of agriculture and tourism in RS. The conclusion gives the standpoint regarding the hypothesis set, indicates the most important results, the research contribution and the limitations.

LITERATURE OVERVIEW

Given the great importance of tourism and agriculture in contemporary conditions, both globally and at the level of national economies, there are numerous studies dealing with this issue. In doing so, increasing attention is given to the integral development of agriculture and tourism on sustainable grounds (Turkalj, Ham & Fosič, 2013), as well as innovative models in this area (Budiasa & Ambarawati, 2014). R. Paci & E. Marrocu (2014) focus on the connectedness of tourism and regional development in Europe. E. V. Yudina, T. V. Uhina, I. V. Bushueva & N. T. Pirozhenko (2016) emphasize the key links and roles of tourism in conditions of globalization, as well as its spatial and socio-cultural dimension, of importance for sustainable agricultural development. J. Von Braun & R. Birner (2017) emphasize the importance of establishing an adequate conceptual framework for analyzing the management of the agricultural sector and the food production system at the global level, the application of an adequate conceptual framework in the analysis of the contemporary problems of the agro-food production system, the identification of possibilities for reforms in this area, etc. Their research is based on theory and practice in this field, which is directly relevant to the global agro-food sector, and indirectly to tourism and other related activities.

Some countries show greater commitment to the realization of the sustainable agricultural and tourism development concept through their interconnectedness, with great allocations for this purpose and a concern for environmental, economic, and other benefits. Due to the strategic importance of the long-term integral development of agriculture and tourism, a large number of authors, national organizations and institutions around the world study this issue from the point of view of sustainable rural development. S. Sandilyan, K. Thiyagesan & R. Nagarajan (2008) note that ecotourism, although essentially aimed at preserving natural resources, can nevertheless cause a loss of biodiversity, which is an important signal for directing this type of tourism and rural economy towards different destinations. M. Pillay & C. M. Rogerson (2013) stress the importance of networking agriculture and tourism in less developed areas. M. Cărătuş Stanciu (2015) suggests that farmers' market and farm visits are the important aspects of sustainable tourism development in rural areas. Some authors explore very specific issues, so S. Z. Mirani & M. B. Farahani (2015) point out the second home tourism (a holiday in cottages) for sustainable rural development.

Research in the integral development of agriculture

and tourism is also present in RS. S. Đekić (2000) analyzes the agricultural and non-agricultural aspects of rural development and emphasizes the importance of rural household networking with the tourism industry, given the fact that, beside food production, rural areas also have a significant role in terms of holiday and recreation, as well as the preservation and improvement of the ecological stability of an area. M. Vujičić and I. Rosić (2000) argue that, as the backbone of rural development, agriculture should give place to integral rural development, where there is a lot of room for tourism development. S. Milenković, L. Ristić and N. Bošković (2013) stress the importance of the integral resource use in the rural-tourist areas of RS, while S. Cvetanović, D. Despotović, Lj. Živković and V. Nedić (2014), explore the ecological dimension of sustainable development, emphasizing ecological sustainability indicators significant for all economic sectors, including agriculture and tourism. In addition to these, many other papers confirm the importance and necessity of further research into the identified research area, with the aim of finding more practical solutions to the integration of agriculture and tourism on sustainable grounds.

A large number of the international organizations specialized in agriculture and tourism, such as the United Nations Food and Agriculture Organization and the UNWTO, are also intensively engaged in finding the best solutions to the contemporary problems of the integral development of agriculture and tourism.

RESEARCH METHODOLOGY

The study of the key factors of the sustainable integral development of agriculture and tourism is based on several scientific methods applicable in the field of social-human sciences, i.e. in economic research. In accordance with the defined research area, qualitative and quantitative research methods are used in order to test the initial hypothesis. The purpose of applying the historical method is to determine the factors that influenced agriculture and tourism development in earlier development phases since this is important for determining their future development directions. Agricultural and tourism development are analyzed both individually and in synergy, so the paper relies on the methods of induction and deduction, as well as analysis and synthesis. The nature of the investigated problem requires the use of the descriptive, comparative, and statistical methods for presenting the key indicators of agricultural and tourism development. SWOT analysis and the generalization method are applied in order to draw a general conclusion.

RESEARCH RESULTS

The General Features of Serbian Agriculture Relevant in terms of Tourism Development

The sector of agriculture, forestry, and fishery had a 6.0% share in the Serbian GDP in 2017 (RZS, 2018, 134), whereby, based on the Labor Force Survey, the share of this sector in the total employment was 17.2% (RZS, 2018, 78), and 5.9% in exports (RZS, 2018, 309). It should be noted that Serbian agriculture is distinguished by rich natural resources and a long tradition. However, agriculture has been facing a number of problems for a long time, such as: land fragmentation - 47.2% of family households have up to 2 hectares of the used agricultural area (RZS, 2018, 221), obsolete machinery - 95% of tractors are older than 10 years (RZS data, 2013, 179), the migration of the population from rural areas, the underdeveloped infrastructure, insufficient investment, insufficient links with industry, tourism, etc. Numerous SWOT analyses, strategic documents on this subject and studies by a great number of authors confirm this.

Agricultural land in RS covers about 5.3 million hectares. The utilized agricultural area (UAA) is about 3.4 million hectares, with the dominance of arable land and gardens accounting for 76% (Table 1), permanent grassland accounting for 18%, and permanent crops accounting for 6% of the UAA (MPŠV, 2018, 12). The structure of the UAA is also important in terms of a tourist offer, first of all in order to determine whether

Table 1 Utilized agricultural area in the Republic of Serbia (in ha), 2008-2017

	2008.	2010.	2012.	2013.	2014.	2015.	2016.	2017.
Arable land and gardens	2,660,545	2,653,602	2,561,674	2,589,714	2,606,073	2,590,984	2,597,808	2,594,980
Cereals	1,830,529	1,804,815	1,715,562	1,766,447	1,819,188	1,782,010	1,763,575	1,718,034
Pulses	6,327	6,008	5,708	5,277	7,830	9,362	9,788	10,582
Potato	56,062	52,852	52,040	50,740	51,987	42,158	40,713	38,472
Sugar beet	51,470	71,304	69,290	66,712	64,112	42,683	50,071	54,183
Industrial crops	362,919	367,795	383,881	368,671	346,524	376,812	408,867	449,147
Vegetables, watermelons and strawberries	58,028	56,470	54,574	52,898	52,680	66,935	68,183	66,488
Flowers	348	361	382	412	343	445	472	1,057
Fodder crops	270,454	268,553	256,008	257,652	242,041	250,359	236,684	240,088
Other crops	2,054	2,143	2,102	1,633	1,713	2,252	2,831	2,252
Fallow land	22,354	23,300	22,126	19,273	19,655	17,969	16,624	14,680
Meadows	376,970	376,918	381,654	381,654	381,654	368,738	342,926	321,812
Pastures	375,765	300,274	331,588	331,588	331,588	320,837	311,211	294,622
Orchards	163,885	164,197	163,310	167,868	174,729	175,917	180,173	183,609
Vineyards	24,070	23,566	22,150	22,150	22,150	22,150	22,150	22,150
Nurseries	1,733	1,669	1,327	1,598	1,531	1,182	1,112	1,246
Other permanent crops	669	644	512	617	524	565	618	587

Source: MPŠV, 2018, 77; RZS, 2018, 208-209

domestic agriculture can provide the appropriate quantity and type of the products necessary to carry out the planned tourist activity.

A decline in the net physical volume of agricultural production by about 12% in 2017, compared to 2016, is primarily due to a decline in the physical volume of plant production, especially cereals and fruits. A general fall in yields is observed with grapes and some fruit, with plant production down by 23.5%, and livestock production higher by only 1.5%, along with a decline in the production of beef and sheep meat, eggs, etc. - Table 2 (MPŠV, 2018, 1-22; RZS, 2018, 199). The observed trends indicate that domestic agriculture development is not in line with the development of the food industry, tourism and other related activities.

Out of a total of 631,552 agricultural holdings in RS, about 12% have related income from non-agricultural profitable activities. The largest number of farms deal with milk processing (about 57%), fruit and vegetable processing (about 30%), whereas only 0.66% of the households are engaged in tourism (Bogdanov and Babović, 2014, 280-283).

The share of agro-food exports in the total Serbian export decreased in 2017 to 19.4%, whereas the share of imports increased to 9.5%. Despite the rising surplus in the trade of these products in the last decade, the year 2017 recorded a surplus lower by one-third compared to 2016. The exports structure is still dominated by a 75% share of primary products, and a 67% share of imports (MPŠV, 2018, 11, 24-35). One-fifth of the export value of agro-food products in 2017 came from trade in fresh fruit (Table 3). The

Table 2 Livestock breeding in the Republic of Serbia, 2008-2017

	2008.	2009.	2010.	2011.	2012.	2013.	2014.	2015.	2016.	2017.
Number of livestock (000)										
Cattle	1,057	1,002	938	937	921	913	920	916	893	899
Pigs	3,594	3,631	3,489	3,287	3,139	3,144	3,236	3,284	3,021	2,911
Sheep	1,605	1,504	1,475	1,460	1,635	1,616	1,748	1,789	1,665	1,704
Goats	284	263	237	239	232	225	219	203	200	183
Poultry	17,188	22,821	20,156	19,103	18,234	17,860	17,167	17,450	16,242	16,338
Hives	485	490	520	593	665	653	677	792	792	849
Gross meat production (000 t)										
Beef meat	99	100	96	81	82	70	73	77	77	71
Pork	266	252	269	271	252	249	258	278	301	307
Poultry meat	76	80	84	103	94	92	94	86	88	95
Sheep meat	23	24	23	24	22	30	27	30	34	30
Milk (mil. l)										
Cow milk	1,561	1,505	1,485	1,462	1,465	1,451	1,492	1,501	1,504	1,506
Sheep milk	14	10	10	11	12	18	20	19	17	14
Goat milk	36	28	27	29	33	34	38	44	37	33
Eggs (mil. pcs.)	1,726	1,711	1,705	1,760	1,794	1,755	1,892	2,061	1,853	1,759
Honey (mil. t)	4.16	7.35	7.28	6.96	6.98	8.55	4.38	12.26	5.76	7.01
Wool (mil. t)	2.60	2.40	2.46	2.38	2.66	2.72	2.69	2.77	2.85	2.83

Source: MPŠV, 2018, 80-81

export of these products is important for the foreign trade balance of domestic agriculture, as well as for motivating foreign tourists to visit Serbia. However, the positive effects on this basis are still insufficient.

The EU is a dominant foreign trade partner of RS given the fact that almost one-half of the agro-food export goes to this market. Exporting to CEFTA countries accounts for about 30%, and to other countries about 20%. In addition to the Russian Federation, the most important foreign trade partner in the group of other countries, the following countries are also important: Japan, the USA, Hong Kong, Turkey, etc. (MPŠV, 2018, 30-34). Except for direct relevance to agriculture, international cooperation on this basis is also important from the point of view of encouraging travel, although this potential is still inadequately exploited.

The strategic framework for improving the export, production, and resource potential of agriculture is defined by the Strategy of Agriculture and Rural Development of the Republic of Serbia for the period 2014-2024. The funds intended for incentives in this area are defined by the Budget Law (MPŠV, 2018, 43). In the period 2007-2017, the MPŠV budget had a number of oscillations, with a relatively low share in the total budget.

In 2017, 15% more funds were spent on incentives for agriculture and rural development than in the previous year (MPŠV, 2018, 8). Nevertheless, the real situation in agriculture and the rural economy points to insufficient institutional support and particularly to insufficient support to linking agriculture with tourism.

The Key Indicators of Tourism Development in the Republic of Serbia Relevant for Directing the Agricultural Activity

The total number of tourists in RS in 2017 was almost 3,086,000. Domestic tourists accounted for 1,589,000

Table 3 The highest values of the exports of agro-food products of the Republic of Serbia (share in %, 2017)

Tariff heading	%	Tariff line	%
1. Fresh fruit	20.0	1. Corn, other than corn seeds	8.6
		2. Cigarettes containing tobacco	7.1
2. Cereals	12.4	3. Raspberry, frozen, without added sugar	7.1
		4. Apples, fresh, other	3.8
3. Tobacco and tobacco products	8.7	5. White sugar, in a solid state	2.7
		6. Edible sunflower oil, other, for other purposes	2.0
4. Beverages, spirits, and vinegar	6.3	7. Other wheat, spelt and meslin, except for planting	1.9
		8. Non-alcoholic beverages, not containing dairy products, other	1.8
5.Animal and vegetable fat and oil	5.9	9. Cherries, frozen, without sugar	1.8
		10. Sunflower oil, raw, for other purposes	1.6
Total top 5 tariff headings	53.4	Total top 10 products	38.3
Total export	100.0	Total export	100.0

Source: MPŠV, 2018, 27-29

(7.9% more than in 2016), with 1,497,000 foreigners (16.8% more than in 2016). Although significantly varying in the period 2007-2017, the total tourist arrivals and overnight stays in RS had a growing trend in the last three years of the observed period - Figure 1 (RZS, 2018, 341-343). In addition, the volume and structure of agricultural production did not sufficiently follow these tourism trends.

In 2017, the number of overnight stays in RS (Table 4) was about 8,325,000 (an increase of 10.5% compared to 2016), with domestic tourists recording about 5,150,000 overnight stays (7.4% more than in the previous year), whereas the number of the overnight stays of foreign tourists was around 3,175,000 (15.9% more than in 2016). Spas recorded 26.8% and mountains 25% of the total number of overnight stays, with 38% of the overnight stays of domestic tourists in spas and 34.1% in the mountains. The structure of the overnight stays shows that 53.3% foreign tourists stayed in Belgrade,

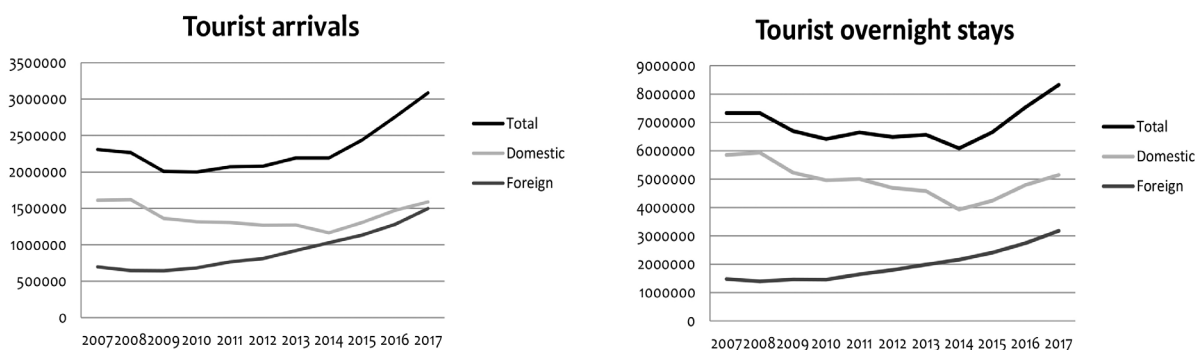

Figure 1 Tourist arrivals and overnight stays in the Republic of Serbia, 2007-2017

Source: Authors, on the basis of RZS, 2018, 343

Table 4 Accommodation capacities, arrivals and overnight stays in the Republic of Serbia, by the types of tourist facilities, 2017

Type of accommodation	Total number of rooms	Total number of beds	Tourist arrivals	Overnight stays
TOTAL	44,813	106,029	3,085,866	8,325,144
Hotels	15,889	32,175	1,670,821	3,938,449
Garni hotels	2,740	5,748	374,440	695,725
Apart hotels	467	1,538	38,464	135,604
Boarding houses	90	221	8,995	31,862
Motels	374	883	22,015	37,616
Tourist settlements	209	392	23,299	45,519
Apartments	1,318	3,902	74,228	225,988
Campsites	294	980	5,970	8,835
Camping grounds	2,289	5,333	7,579	29,798
Private rooms	7,778	20,245	132,536	452,811
Private houses	1,587	2,725	150,220	428,804
Hunting lodges and cottages	30	61	195	318
Inns with overnight stays	809	2,023	39,206	92,473
Overnight stays	3,609	8,879	223,612	538,131
Hostels	2,323	6,854	77,136	210,837
Spa cures	1,966	4,130	65,223	597,386
Climatic cures	688	1,817	34,168	213,651
Mountain shelters	228	834	10,598	37,954
Workers' resorts	301	801	20,107	80,971
Children and youth resorts	1,080	4,478	90,788	493,301
Sleeper and dining cars	40	175	10,478	10,478
Rural tourist households	675	1,723	5,061	16,040
Other catering accommodation facilities	29	112	727	2,593

Source: RZS, 2018, 344-345, 351

7.3% in Novi Sad, 8.5% in the spas, and 10.1% in the mountains. In addition, the largest number of the foreign tourists who visited RS in 2017 were tourists from Bosnia and Herzegovina, Turkey, Bulgaria, Croatia, and Montenegro (RZS, 2018, 341), which is not sufficiently taken into account when planning the structure and volume of agricultural production in RS.

Out of a total of 5,061 tourist arrivals (16,040 overnight stays) referring to rural tourist households, foreign tourists recorded 293 arrivals in 2017 (727 overnight stays) (RZS, 2018, 344-345). Out of a total of 675 rooms (1,723 beds) in rural tourist households, 104 rooms (320 beds) refer to the spas, 120 rooms (307 beds) to the mountain areas, 390 rooms (941 beds) to other tourist resorts, and 61 rooms (155 beds) to other places. The rooms and beds of rural tourist households participate with only 1.5% in the total number of the rooms (beds), i.e. 1.6% (RZS, 2018, 351). Among the rural accommodation capacities, houses are dominant, only to be followed by apartments and villas, chalets and cottages, holiday homes, ethno-villages, farms, mansions, hotels, and very few exclusive buildings and residences.

Regarding the turnover structure in the Serbian catering industry in 2017, the largest share is that

of the services related to food and drinks, then beverages and overnight stays (Figure 2), which indicates some changes in relation to the previous periods. Nevertheless, the turnover structure in the catering industry is not satisfactory (RZS, 2018, 354).

In the regular annual World Economic Forum (WEF) report on tourism competitiveness, measured by the Travel and Tourism Competitiveness Index (TTCI), RS was ranked the 78th among 133 countries in 2008; in 2009, it was in the 88th position; in 2015, it ranked the 95th out of 141 countries, and in 2017 (Table 5) it was the 95th among 136 countries (WEF, 2017).

Although health and hygiene, ICT equipment, and environmental protection are better ranked than the other TTCI components in the case of RS in 2017, the TTCI still points to the inadequate budget allocation for tourism, as well as other problems in this area.

The Tourism Sector of the Serbian Ministry of Trade, Tourism, and Telecommunications has specific internal units dealing with (MTTT, 2016): market research and tourist product development, increasing competitiveness and tourism quality management, study-analytical activities, etc. The National Tourism Organization of Serbia carries out the activities of tourism promotion and advancement. Funds for tourism organizations are provided from the budget and other sources. However, as the TTCI shows, the allocation of funds for tourism development is still insufficient, as well as its links with agriculture are.

Table 5 TTCI index - Republic of Serbia, 2017

Elements of TTCI Index	Ranking
Business environment	112
Sustainability (preservation) of the environment	61
Security and safety	72
Health and hygiene	42
Priority (importance) of travel and tourism	116
Aviation transport infrastructure	84
Land and water transport infrastructure	94
Tourist infrastructure	76
ICT (Information and Communication Technology)	57
International openness	106
Price competitiveness	76
Human resources and labor market	82
Natural resources	130
Cultural resources and business travel	71
TTCI	95

Source: WEF, 2017, 294-295

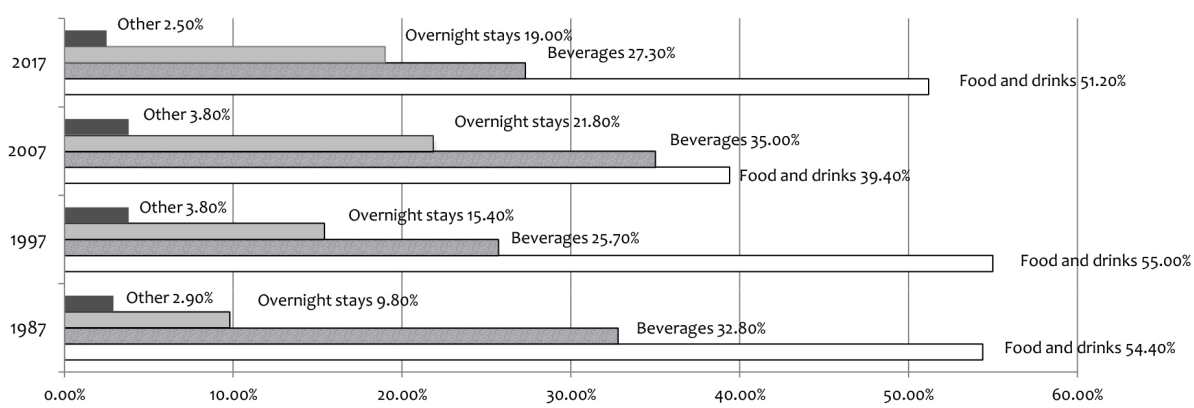

Figure 2 The turnover structure in the catering sector of the Republic of Serbia

Source: RZS, 2018, 354

The Tourism Development Strategy of the Republic of Serbia for the period from 2006 to 2015 points to the following tourist products as particularly interesting (Vlada Republike Srbije, 2006): city breaks; circle trips; business tourism + MICE; health tourism; mountains and lakes; nautics; events; rural tourism and special interests. This strategy was implemented to a lesser degree due to a number of constraints, which also limited the integral development of tourism and agriculture. The new Tourism Development Strategy for the period 2016-2025 states that tourism should be systemically accessed not only through economic indicators as a possible sustainable source of creating new value added and employment, but also through the multiple effects that tourism has on local and regional development, the development of culture and education, the improvement of the environment and the development of complementary activities, such as trade, agriculture, construction, etc. The goals of this strategy are (MTTT, 2016, 5-6):

- Sustainable tourism development;
- Strengthening the competitiveness of the tourism economy and related activities;
- Increasing the share of tourism in the GDP and employment;
- Improving the image of the Republic of Serbia.

The Strategy emphasizes the fact that the Republic of Serbia possesses a significant resource potential for tourism development (MTTT, 2016, 39): a preserved, attractive and diverse natural environment; authentic gastronomy and cultural heritage, recognizable capital, etc. Nevertheless, the sector is still insufficiently institutionalized and developed, lacking in modern management and marketing, higher investment activities and better sources of financing, and particularly higher budget funds for integral development with agriculture and other related activities.

The Link between Agriculture and Tourism in the Republic of Serbia

Agriculture and tourism are basically very interconnected and interdependent. Quantitative changes in tourism turnover (the number of arrivals and overnight stays, the average length of the stay at a destination and similar indicators) determine the dynamics of tourist consumption, and consequently the consumption and production of agricultural and food products included in the tourist offer (Tomić, 2008). On the other hand, changes in agro-food production and turnover affect the content of the tourist offer.

The strongest connection between agriculture and tourism is present in rural areas due to the fact that agricultural production takes place in these areas, where many forms of tourism can develop.

Rural tourism best reflects the links between agriculture and tourism, encompassing a whole range of activities, products and services, offering tourists a number of the elements of the natural environment, a natural experience, a rural tradition, culture and the other values of the local community, combining different forms of tourism, linking traditional and modern, i.e. rural heritage with contemporary trends (UN & Government of the Republic of Serbia, 2011, 15). The link between agriculture and tourism is also clearly evident in the various aspects of rural tourism, such as agro-tourism, gastronomic tourism, and similar forms of tourism. Considering the fact that agro-tourism means a guest stay in agricultural households and that gastronomic tourism points to the prime importance of local food and local specialties as tourists' main motives to visit a certain destination, these relations confirm the pronounced connection between agriculture, i.e. food production, and rural tourism.

Although theory and practice offer various models for the successful linking of agriculture and tourism, the ways in which they are connect with each other in RS, as well as the benefits achieved on this basis, are not at an enviable level.

Table 6 The SWOT analysis of rural tourism in the Republic of Serbia

STRENGTHS	WEAKNESSES
• Natural resources, relief, climate • Biodiversity • Cultural heritage • Hospitality • Traditional agriculture • Local identity, customs, folklore, folk art • Events • Gastronomic offer • Price competitiveness	• Undeveloped infrastructure • Adverse demographic structure • Insufficient institutional support • Insufficient quality sources of funding • Insufficient promotional activities • Insufficient care for the preservation of cultural and historical heritage • Lack of the accommodation capacity • Insufficiently diversified and integrated agro-tourist offer • Insufficiently improved quality of the tourist offer
OPPORTUNITIES	**THREATS**
• Changing trends in tourism • Funds for rural development and tourism • Connecting rural with other forms of tourism • Improving the quality of the tourist offer • Development of SMEs (small and medium-sized enterprises) and entrepreneurship • Public-private partnerships • Raising the level of attractiveness of natural and cultural assets • Creating integrated tourism products • Area branding	• Insufficient funding • Insufficient institutional support • Economic and political instability • Climate changes • Exhaustion of natural resources • Strong competition • Inadequate management of cultural goods • Inadequate waste management • Decreasing quality and attractiveness of the tourist offer • Inadequate linking of traditional and contemporary values • Insufficient investment in the development and maintenance of the infrastructure

Source: Authors

The Republic of Serbia is characterized by an incomplete and insufficiently differentiated offer of rural tourism (Table 6), the insufficient coordination and non-synchronization of most relevant components, as well as non-compliance with other important sectors (Vandić, 2016, 5-6).

Apart from rural tourism, domestic agricultural food products are poorly represented in the other forms of tourism as well, which is not promising either for agriculture or for tourism. However, both the state and local self-governments have been undertaking certain measures to improve rural and tourist content.

Institutional support to the integral development of agriculture and tourism in RS is most often provided through (UAP, 2018):

- programs for improving the competitiveness of agriculture, while simultaneously preserving the environment and natural resources (the sustainable use of agricultural land and forest resources, the preservation of plant and animal genetic resources, as well as the areas of high natural value, support to agroecological measures, good agricultural practice and the environmental protection policy);

- support to investment in processing and marketing in agricultural holdings;
- support to income diversification and the improvement of life quality in rural areas (investment in the rural infrastructure development, the improvement of economic activities in the countryside, support to non-agricultural activities, the youth, etc.);
- improving the knowledge creation and transfer system.

The Ministry of Agriculture, Forestry, and Water Management finances and co-finances individual projects in which priority thematic areas of importance for tourism are: the diversification of the rural economy, the preservation of cultural and natural heritage, etc. The Tourism Sector of the Ministry of Trade, Tourism, and Telecommunications has been undertaking certain measures that directly relate to tourism development, and indirectly to agriculture. However, neither the efforts of the line ministries nor the efforts of the other important stakeholders in this area are sufficient, meaning that the connection between agriculture and tourism in RS is still insufficient and institutionally unorganized, as is confirmed by the unfavorable situation in domestic agriculture and tourism.

Priorities and Perspectives of the Sustainable Integral Development of Agriculture and Tourism

The creation and implementation of the Serbian agricultural policy is limited by a number of factors. The financial constraints are a chronic problem, not only in terms of incentives, but also in terms of the investment activity. No lesser problem is the frequently irrational spending of the available funds. The EU rural development funds are a potential opportunity to improve funding, but they require a number of institutional reforms, technological and organizational innovation. In this context, a new agricultural policy must be stable, predictable, and consistent, based on realistic goals and harmonized with international trends, taking into account national interests. Establishing a sustainable agricultural production system is one of the imperatives, which requires strong political will and considerable investment. Agriculture has opportunities for development if it develops integrally with the sectors "around agriculture" through the concept of multifunctionality (Pejanović, 2016, 76-89). More dynamic structural reforms in agriculture will contribute to the recruitment of a part of the labor force in non-agricultural sectors (tourism, industry, etc.), which suggests the need to define a wider range of consistent policies (Bogdanov and Babović, 2014, 285-287). The complementarity of agriculture with other activities, especially tourism, is necessary, so changes should be carried out gradually and thoughtfully, with the development policy makers' responsible attitude towards this issue.

Considering the context of contemporary economic trends on the global tourism market, the geostrategic position and the process of the EU accession of RS, the current situation and the tourism resource potential, it is necessary to establish an adequate business mission in tourism, in the medium and long term, with greater commitment to the measures for energy, industry, and agriculture development, as well as for the implementation of the infrastructure projects. In this regard, it is necessary (MTTT, 2016, 42-43):

- to more effectively use and protect natural and cultural assets;
- to raise energy efficiency and the use of renewable energy sources in tourist facilities and at tourist destinations;
- to encourage sustainable rural and regional development, as well as reducing depopulation;
- to create and maintain a positive image.

The complex issue of building an effective tourism policy relates to: the infrastructure development, the improvement of tourism products, networking with other sectors, the improvement of the national tourism marketing system, etc. In order to identify the key areas of intervention, it is necessary to define the priority products which can realistically be commercialized on the market and identify the

destinations that already have or can develop these products within acceptable deadlines (MTTT, 2016, 52-55). Tourism can activate the activities that do not have a tourist feature themselves through the conversion process. The development of the tourism economy may create a need for a greater supply of food and drinks, new accommodation facilities, sports facilities, entertainment facilities, etc. Also, there may be more needs for the development of transport, utility, and another infrastructure, which then "opens" the need for staff with different qualifications and of different profiles, i.e. greater employment opportunities (Vojnović, Grujić and Grujić, 2013, 11-12). In doing so, the business mission of the integral development of agriculture and tourism should be conceived in accordance with financial and institutional capacities, while sector performance, the macroeconomic situation, as well as external factors will still determine the speed and direction of changes in this field.

The Serbian agro-tourism offer is not integrated, which points to the necessity of creating an integrated marketing plan which will put the promotion and sale of agro-food and tourism products to the forefront, creating conditions for a greater integration and quality of the offer in this domain. In this way, tourism could help (Vujović, Cvijanović and Štetić, 2012, 198-200):

- create additional sources of income,
- increase employment and improve the life quality of the rural population,
- boost the sales of agricultural and food products,
- prevent a further depopulation of villages,
- revive cultural content, events, and ethno-content.

This could also launch other important social processes.

Adjusting the agricultural production structure to tourism is an important issue of tourism consumption. Expanding and improving organic food production, products with a well-known geographical origin and the like are considered to be particularly important. Also, it is necessary to look at the possibilities of the greater integration and contractual linking of agro-tourism economic entities, which requires the elaboration of the economic policy incentives to harmonize complementary activities. Permanent agricultural and tourist market research, the introduction of modern solutions in business practice, as well as an ecological approach with comprehensive education are also significant in this regard (Tomić, 2008, 148-150). A greater availability of funds and institutional support, stronger social capital and market links should strengthen the integral development of agriculture and tourism and contribute to their sustainable development, through local cooperation, regional cooperation, and integration into wider frameworks.

Agro-economic, socio-cultural, spatial-ecological, and tourist-development goals require care for the vitality of the available resources at all development stages. A permanent loss of agricultural land due to the construction of tourist facilities and roads is the negative effect of tourism development, which good spatial plans, adequate fiscal and environmental policies, etc. can significantly mitigate (Tomić, 2008, 145).

The synthesis of theoretical concepts and empirical research confirms that rural tourism and associated tourism forms provide great opportunities for an atypical and diversified offer (Vujović, Cvijanović and Štetić, 2012, 210-211). Although the future of a great number of rural areas is uncertain, rural tourism can be an appropriate approach to revitalize some villages. Tourism development in rural areas can absorb the rural workforce surplus, without pressure on cities and adverse socio-economic and environmental consequences, and can help solve the problem of the depopulation and aging of villages. Out of all direct effects, one of the most important is the foreign-exchange or balance-of-payments effects of tourism. Specifically, economic theory knows of the so-called invisible exports phenomenon as a form of the sales of agricultural and food products to foreign tourists in the country (Tomić, 2008, 144-145).

In order to realize the concept of sustainable development, it is important to highlight the types

of agricultural production that fit in with the concept of sustainable tourism development. Accordingly, environmental directions are more and more interesting. Organic agriculture is considered as one of the most important development opportunities in this regard (Table 7) and the destination concept of tourism development, in terms of the compatibility of organic production and environmental protection, is gaining in importance.

Table 7 The potential benefits of organic production

Area	Expected positive changes
Agriculture	Better quality of land and agricultural products, sustainable production
Tourism	Improving the quality of the tourist offer, the sustainable use of resources
Economic benefits	Support to local economic development on sustainable bases, increasing revenue
Environment	Reducing environmental pollution, preserving ecosystems, ecological compatibility with the economy, reducing the risks inherent in conventional production
Social benefits	Preservation and improvement of human health, higher employment in the organic sector, support to the social component of sustainable development

Source: Authors, on the basis of IFOAM-Organics International, 2018

In addition to organic agriculture, domestic conventional agriculture should also be included in the tourist offer in the future, assuring a standard quality and product safety.

CONCLUSION

The integral development of agriculture and tourism is determined by numerous internal and external factors, some of which positively influence their development, whereas others have a very negative effect. Regardless of the origin and direction of these factors, no economy and no economic sector can remain isolated from them. Therefore, it is important to adequately institutionalize all relevant contemporary challenges, especially due to the fact that certain constraints are of an economic-political nature, some are social, and there are the ecological constraints that human beings cannot influence despite state-of-the-art technology. Due to all of the foregoing, and given the fact that it is very difficult to accurately predict the future of the sustainable integral development of agriculture and tourism, it is important at almost all levels to ensure an adequate approach, appropriate to the area specifics.

Based on the conducted research, taking into consideration the results of the previous studies and the real situation in the field of agriculture and tourism, it can be concluded that the integral development of agriculture and tourism is very important in modern conditions in accordance with the principles of sustainable development and the area specifics. If agriculture and tourism are adequately institutionalized and integrated on a sustainable basis, one can expect multiple positive socio-economic effects, economic benefits in particular: growth in income from agriculture and tourism and other directly or indirectly related activities; a rise in employment in the agro-food sector, tourism, and the rural economy, with their rising contribution to the growth of the GDP and exports; a rising volume of agricultural production, tourist arrivals, and overnight stays; a higher quality and the attractiveness of agro-food and tourism products; the diversification of agricultural production, the non-agricultural rural economy and the tourist offer as a whole; reducing poverty and the social exclusion of the rural population, while simultaneously improving the demographic picture of the areas in which agriculture and tourism will develop in the long term and integrally.

The starting hypothesis in the paper has been confirmed because the research results confirm that it is extremely important in RS to more intensively institutionalize the links between agriculture and tourism within the realization of the concept

of sustainable development, since only such an approach can bring the economic benefits relevant for agriculture and tourism (the activity diversification, growth in employment, income, investment activities and exports, the improvement of international economic relations in the field of agriculture and tourism, etc.). In addition to the economic effects, a great number of the positive non-economic effects relating to the important social and ecological aspects of sustainable development can also arise as a result of a more active approach to the integral development of agriculture and tourism, where demographic revitalization is especially evident, with the preservation and a more creative use of the available resource potential in agriculture and tourism.

The institutional framework is one of the most important components of the sustainable integral development of agriculture and tourism. Accordingly, this research is addressed to the development policy makers in the field of agriculture and tourism in Serbia, and, along with a great number of other relevant studies, discussions, and views of the authors directly or indirectly dealing with this issue, it can influence the reform processes in the field of the integral development of agriculture and tourism. The research suggests that institutional support to the sustainable integral development of agriculture and tourism in RS is insufficient, which is not in line with the natural and anthropogenic resources Serbia has, so this support should significantly increase in the future, both in terms of funding and in terms of creating a more stimulating environment for the long-term survival and development of domestic economic entities in agriculture and tourism. The survey is also a signal to economic entities that it is necessary that business in agriculture and tourism should be modernized and significantly integrated.

The basic limitation of this research relates first of all to the difficulty of the precise measurement of the mutual impact of agriculture and tourism, i.e. the insufficiency of economic and similar quantitative indicators of the intensity of the agricultural impact on tourism development, and vice versa, as well as lacking the indicators of their integral development. Also, the scope of the research can be regarded as a limitation because the study focused on one country only. Therefore, some future research could deal with a larger sample, i.e. it should consider the possibilities of conducting a comparative analysis with the countries in the region, the countries that are more recognizable on the agricultural and tourism market or represent an example of good practice in the field of the integral development of agriculture and tourism, without ignoring any country similar to RS, especially when unused agro-tourism resources and numerous internal and external limitations preventing the sustainable integral development of agriculture and tourism are concerned.

The main contribution of this research is the emphasis on the possibilities of and constraints on the integral development of agriculture and tourism in RS, with the recommendations to the development policy makers regarding an improvement in this area and the emphasis on the irreplaceable role and responsibility of the state throughout the process. In addition to highlighting the great socio-economic importance, necessity, priorities, and possible future directions of the sustainable integral development of agriculture and tourism in RS, the contribution of this paper also relates to the possibility of initiating a new research study of this issue and applying its results in practice.

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LONG-TERM PROVISIONS AS A SECURITY MECHANISM DUE TO A LACK OF QUALITY

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Modern business conditions have decisively been indicating that quality is the basis of the competitiveness of a company. A lack of quality creates dissatisfaction and affects customer loyalty. Lately, there has been a tendency of the growth of non-quality costs, which is a consequence of a lack of the quality of the products delivered. Although numerous studies suggest models for calculating non-qualitative costs, no relevant mechanism has been found yet to manage these costs. In this study, the authors attempted to find a link between long-term provisions and the external failure cost since this relation has not received other researchers' attention so far, as it deserves. The aim of the research is to point out the importance of long-term provisions as relevant instruments to control external failure costs. Different surveys have confirmed the initial assumption and showed that long-term provisions are effective instruments for managing the costs of external failure. A positive, statistically significant correlation between long-term provisions and the net profit of a company was also identified among the first 100 enterprises from the list of the most successful enterprises in the Republic of Serbia in 2017.

Keywords: quality, quality costs, external failure costs, long-term provisions

JEL Classification: L52, M21, M41

INTRODUCTION

The competition that operates on the market with a propulsive force imposes a requirement for all participants, even small businesses included, that they cannot survive without effective financial and economic management. It is companies' ambition to operate in accordance with market demands, survive on the market, increase their financial and economic effectiveness, and develop (Eben-Chaime, 2013).

Business philosophy in contemporary conditions emphasizes the importance of quality as one of the important factors of business success. "Although it has been more intensely mentioned and written about since the last few decades of the 20th century, quality is immanent in human nature and can be said to be 'older' than the company" (Bošković and

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Anđelković Pešić, 2011, 2). However, we should bear in mind the fact that quality, or a set of the product attributes necessary to meet customer needs, is of a changing nature. Therefore, in order to control the quality of products/services, it is necessary for a company to act reactively or proactively (Vučićević and Anđelković Pešić, 2012). The reactive activity of a company includes the activities directed towards dissatisfied customers. A proactive action includes the activities undertaken by a company in order to prevent the occurrence of defects and the occurrence of dissatisfied customers. A set of all the activities of a company's reactive and proactive procedures is being paid special attention in academic circles. Companies are increasingly starting dealing with quality control issues, looking at quality as a factor of competitive advantage. Analogously, managing quality costs is becoming an imperative of the new economy.

Although numerous classifications of the cost of quality can be found in the literature, the majority of authors have accepted the cost structure of quality provided by A. V. Feigenbaum (1994). According to that author, the cost of quality can be divided into prevention costs, detection costs, internal failure costs and external failure costs. Prevention costs arise as a result of the activities aimed at preventing a potential lack of quality and the possibility that non-compliant products might reach customers. Detection costs arise from a company's efforts to detect the degree of the compliance of its products with quality requirements in order to satisfy consumer demands. Quality control is precisely paid attention to due to the costs involved in determining whether a proper quality is maintained. However, globalization and increasing consumer demands have made it impossible for companies to manage only these quality costs. There is an increase in internal and external failure costs. Therefore, these costs are referred to as non-return/failure costs. Non-quality costs arise when a product of an inadequate quality is created. As such, they predispose "the difference between the actual operating costs and the operating costs that would have resulted if there had not been a failure in the company's systems incurred by its employees" (Krishnan, Agus & Husaain, 2000, 844). Internal failure costs arise when the manufacturer discovers an error while assembling a product, whereas external failure costs arise when a product error is detected by a customer. Internal failure costs include: the costs of the defect analysis, replacement costs, treatment costs and repairs, re-inspection and testing costs, elimination costs for defective products, opportunity costs, and waste costs. External failure costs include the costs of withdrawing products from the market, the costs resulting from lost sales, the costs of returned products with a warranty period, the shipping costs arising from returned products, the costs of product servicing (Vučićević and Anđelković Pešić, 2012, 498). External failure costs are a result of the dissatisfied consumers who lodge a complaint about the product of an unsatisfactory quality and seek interventions within the warranty period or a refund. These costs can have consequences for the company's business, if the company does not have enough resources to provide new products within the warranty period.

The subject matter of this study are the costs of quality, or more precisely the costs of external failure that occur due to a lack of the quality expected by consumers. This research study is aimed at pointing out the importance and role of long-term provisions for the management of quality costs, starting from the assumption that long-term provisions can be particularly efficient tools for managing the costs of external failure. Identifying the costs of external failure and security in the event of their reporting are very important because quality is one of customer demands, together with the time of delivery, the price and the flexibility of products, which are the key competitive priorities in contemporary conditions" (Krstić, Anđelković Pešić and Anđelković, 2010, 346). Bearing in mind the nature of long-term provisions, the above-stated assumption is expected to be confirmed through the study.

For the purpose of examining long-term provisions, a wide range of research methods were applied. The induction method was used to analyze all the costs of quality and make general conclusions. The methods of analysis and synthesis were used to examine long-term provisions. The historical method and the method of compilation were applied to analyze similar studies in this field. Correlation analysis and variance

analysis were used as the appropriate methods of statistical analysis. The hypothesis was tested out by applying the desk method, which involves the use of professional and scientific literature.

The study assumed that long-term provisions were effective instruments for managing external failure costs and that there was a positive quantitative concurrence between long-term provisions and the net profit of a company.

In the first part of the paper, a review of the literature on quality costs and long-term provisions is given. The second part analyzes the role of long-term provisions in cost management. In the third section, whether long-term provisions can be an effective tool for reducing the consequences of an inadequate quality or not is examined. The fourth part contains the conclusions. Based on the results obtained, a guideline for further research is expected to be drafted. The paper seeks to promote a good assessment of long-term provisions in order to protect against modern business risks.

COST OF QUALITY MANAGEMENT

The concept of quality can be attributed to the 1950s and a group of researchers including Edwards Deming, Joseph Juran, and Armand Feigenbaum. Back then, the measurement and reporting of quality costs was the first step towards quality management. Over time, the cost of quality has become a "golden mine" of companies and the current topic in academic circles. The greatest attention was paid to prevention costs, according to which quality was well-managed by managing this type of costs. According to Juran "quality implies the convenience of use", and this author pointed to the great importance of prevention costs. His model of optimum quality costs created the basics for further research in the field of quality costs (Bošković and Anđelković Pešić, 2011, 2).

The philosophy of quality costs expanded in academic circles in the post-1990s. D. Bamford and N. Land (2006) emphasizes that a quality cost analysis can be done best if all quality costs are taken into account. A comprehensive analysis of quality costs that contributes to product and service costs was also provided by A. Sailaja, P. Basak and K. Viswanadhan (2015). Their research results indicate that there are hidden quality costs which can be up to three times as high as the known quality costs. However, according to the authors all quality costs can be reduced or even eliminated by the proper monitoring and understanding of the underlying causes.

Without quality products, companies cannot achieve the expected profit. Not only do errors create unnecessary costs in a company, but they also hinder the production process, leaving the consequences that can lead to a production stoppage (Campanella, 1999). A. Schiffauer and V. Thomason (2006) provided an overview of the published literature on different approaches to quality and the successful implementation of these approaches, pointing out that access to quality costs must match the situation, goals, and needs of the company and the environment. S. Bisgaard (2007) points out that, based on the existing studies on the subject matter, no "perfect" approach to the management of quality costs can be given although Juran managed to synthesize the topic and provide a coherent framework and terminology. Juran predicted many principles that were later incorporated under the "Six Sigma Umbrella" (Bisgaard, 2007, 665). Also, other advocates of the quality theory provide the significant methods, techniques and instruments that not only facilitate cost-benefit management, but also enable efficient corporate governance. "However, not one of the approaches offers concrete solutions and not a single such solution could be considered as a concrete solution for a particular company" (Bošković and Anđelković Pešić, 2011b, 56).

Internal and external failure costs have increasingly participated in total costs. According to A. V. Feigenbaum (1994), non-quality costs represent 65-70% of the total quality costs. The emphasizing of the importance of non-value costs results from their detection by customers, which can significantly affect a company's business. The buyer, the most important link in a company's business, dissatisfied with the quality of a product, can influence the company to start operating at a loss. Namely, the number of

returned products is inversely correlated with a gain. If there is an increase in the number of complaints, the issue of the company's survival opens. Finally, "prevention costs will achieve the ideal value when cancellation costs are brought to a tolerant level" (Raupp, Gaebler, 2016, 284).

T. Malmi, P. Järvinen and P. Lillrank (2004) emphasized the fact that it was impossible to use traditional methodologies when the management of non-quality costs was concerned. In their research study, the authors presented an approach to managing these costs. In line with modern business conditions, internal failure costs are gaining an increasing role in planning. However, the problem is the fact that "many external failure costs are not included in the quality costs". Therefore, there is a problem of managing external failure costs, with respect to which whether they will arise at all or not is unknown. According to the results of the research project, costs can be managed by introducing the use of the perspective value and the probability of occurrence. External failure costs, or a lack of quality costs, are "all those costs that would disappear if the production process were perfect" (Teli, Majali, Bhushi, & Surange, 2012, 330). External failure costs arise when the quality that is missing has direct implications for the consumer. This results in certain business risks. The consumer demands the reclamation of the product, an intervention in the warranty period, returns the product and expands the information about the quality.

The model designed by J. Chi-Tsou (2007) confirms that defective products and non-quality costs are one of the factors lying behind a decline in corporate profits. The changes caused by defective products affect a reduction in annual profits. In their study, H. Ali, W. Arif, D. Pirzada, A. Khan and J. Hussain (2012), focused on the non-performance costs of a production unit in Pakistan, analyzing the costs of the internal and external deficiencies. The authors provided a model aimed at minimizing and eliminating failure costs, including costs arising from warranties. Essentially, the most important thing in reducing non-quality costs is to set priorities for an effective use of resources, which is possible to accomplish by identifying the factors contributing to the emergence of the same (Ali *et al*, 2012). F. M. Raupp and D. M. Gaebler (2016) identify non-quality costs, and provide a classification of quality costs according to the authors in the period from 1990 to 2003. The authors point to the importance of their research study from the academic point of view due to scarce studies in this field. The results of the research indicate that the non-quality cost exceeds quality costs.

"Where there is a need for control of something, the first thing to do is measure. If something is not quantitatively expressed, we cannot manage and control it" (Krishnan, Agus & Husain, 2000, 844). It is very difficult to predict external failure costs because they depend on the type of industry, the level of the implementation of quality management, and many other factors. Therefore, the study of the mechanisms that enable a realistic estimate of the non-quality cost is of great importance.

The importance of the management of external failure costs can be seen in the negative correlation between quality management costs and the costs of internal and external failures (Figure 1). Unlike the other types of quality costs, these costs grow when the cost of quality decreases. In the zone of decreasing quality costs per product, the costs of internal and external failures go beyond 70% of the total quality costs, prevention costs, detection costs, internal failure costs, and external failure costs.

In order to achieve a satisfactory quality, it is necessary to reduce the non-quality cost (Fu & Zhang, 2016). There is another argument in favor of the importance of external failure costs. Quality costs can also be differentiated by activity. From this aspect, the most important costs are exactly those in the product-use phase, i.e. the costs that accompany the post-production process. These costs involve the warranty period, quality costs, product servicing costs, and product maintenance costs.

S. Baiman, P. Fischer and M. Rajan (2000) analyzed the relationship between product quality and quality costs. The authors examined the successfulness of incorporating a special information system, which would reduce inefficiency and external failure costs.

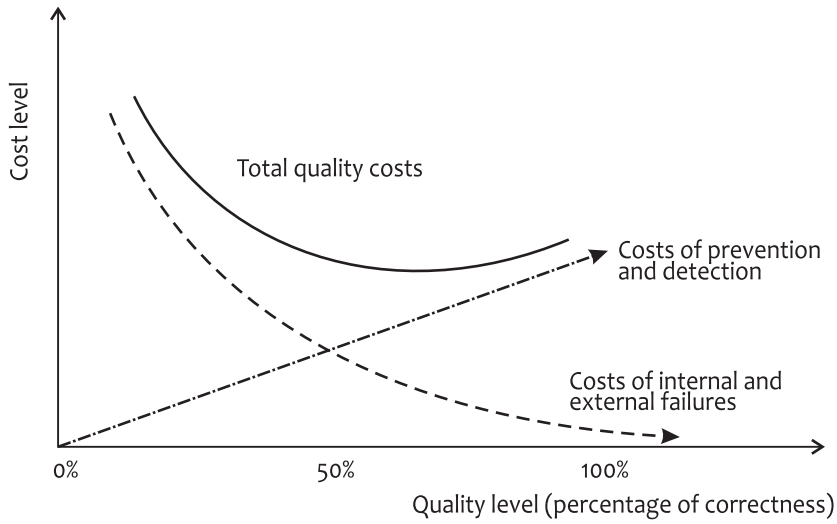

Figure 1 The movement of quality costs

Source: Bošković and Anđelković Pešić, 2011, 171.

S. N. Teli *et al* (2014) conducted an experimental research study in the field of the automotive industry. In order to test profitable business management, the authors assessed the market-oriented aspects of quality costs. "Tracking non-qualitative costs would help analyze operating costs" (Teli *et al*, 2014, 1757). Based on the collected data, the authors performed a graphic analysis of the impact of the quality costs on the company's operations. One of the methods for reducing the non-qualitative costs is analised by C. Barbará, C. Eutrópio E. de Souza i R. Catunda (2008). They analyzed non-production costs, problems of nonconformity, failure of service activities and loss of revenue due to lack of quality. It is considered that quality control should begin at the design stage of the product (Bošković & Anđelković Pešić, 2011). However, despite the positive effects of such a control, it seems to be insufficient in modern business conditions. Taking this into account, V. Vučićević and M. Anđelković Pešić (2012) examined a lack of quality consequences and pointed to the importance of control.As an important determinant of business operations, controlling was also examined by A. Satanova and M. Sedlicikova (2015). Focusing on non-quality costs control, the authors emphasized the fact that control and cost management were linked to the principles of the TQM philosophy. Finally, the author's opinion that "controlling provides a framework for the application of statistical quality control, designing experiments, improving quality, and applying the reliability method" (Bisgaard, 2007) points to the need for analyzing the correlation between the management of the cost of quality and controlling, or testing the role of controlling and the corresponding instruments in the process of managing the costs of quality.

LONG-TERM PROVISIONS AS A CONTROLLING INSTRUMENT

Controlling is a good way of managing from the aspect of accounting, which is necessary to preserve the basics of control (Wojtaszek, 2016). It is necessary to estimate the governance process in particular in the assessment of financial results with a particular focus on cost analysis. Long-term provisions are identified as one of the controlling instruments used in risk protection business.

A wide range of allocations for a variety of risks could be seen in France and Germany even back in the

1960s. Provisions included provisions for disputes, guarantees given to customers, fines and penalties, losses at exchange rates, employee participation in development effects, rebates, differences in taxes, even for pensions, annual leaves. All this points to the importance of provisions for the functioning of a company.

Long-term provisions belong to borrowed capital. However, as a category of borrowed capital, they represent a specific obligation of an exact character, and accordingly differ from the other categories of borrowed capital. The obligation implies the present obligation arising from the previous event (by the act of sale, the company undertakes to implement certain activities for which it gave a guarantee to the buyer, these activities occurring in several years). The settlement of the resulting obligation will naturally lead to an outflow of precisely defined company resources. In the case of provisions, the exact amount and the exact maturity of the obligation (reclamation) are unknown on the balance sheet date, and therefore provisions differ from other obligations. Long-term provisions are the liabilities that are not valued on the basis of a document, but their valuation is based on an estimate. Long-term provisions are different from potential liabilities. A provision is an obligation that exists on the balance sheet date, and a contingent liability is not current and does not exist on the balance sheet date. A potential obligation is a possible obligation. According to the International Accounting Standard IAS 37 (paragraph 10), "the provision of liabilities with an uncertain maturity or amount" (IAS 37, 2009, 16). An obligation is the present obligation of the company that came from the past event that would result in the outflow of economic benefits from the company. If there is no past event, there is no obligation relationship that creates an obligation, so there is no provision.

Thus, in order to make a provision, it is necessary to fulfill the two conditions:

- liabilities exist on the balance sheet date, i.e. there is an obligatory relationship based on the law or custom,
- the amount and the deadline of the obligation are not known, there is a great uncertainty (provisions are more uncertain even from a passive time delimitation), but again there is a need for a certain expectation of an actual creation.

A past event can create two types of obligations: a legal obligation and a constructive obligation. A legal obligation arises from a contract, either legally, or under the force of the law, for example a court decision. A constructive obligation arises from some of the activities carried out by an entity, with respect to which it is known that the same will arise from practice or a statement of responsibility acceptance[1]. There is essentially no difference between the provisions created on the basis of legal or constructive obligations - in both cases they are followed by the same accounting treatment. Recognizing whether it is a legal or constructive obligation indicates the time when provision is recognized.

The "basis" of a provision is given by the principle of income and expenditure causation and the principle of prudence. It means that, if income is realized in the current period, for example based on the sale of some goods, it is logical that expenditures will arise from the issuance of those goods, which will arise in a future period as a result of the revenues for the current period. These expenditures will be recognized as current-year expenditures. Including such expenditures in the Balance Sheet Long-term Provisions is always accompanied by an increase in expenses in the Income Statement and a decrease in the periodic result. Also, if revenues are higher than expenditures, the provision will be covered by revenues and will appear in the form of liquid assets in the assets of the Balance Sheet. Until the moment of the payment of the expenses based on which provisions are made, the funds derived from the revenues of the covered provisions can be used to finance other needs. The characteristics of borrowed capital are seen here because provisions in this case appear as the sources of funds.

In the literature and legislation, no general risk list, i.e. the basis for forming provisions against third parties, is provided. In France, provisions represent a special position of the existing capital. Therefore, these are the obligations of the current and the previous accounting periods according to future

accounting periods. The financial reporting rules require that the costs that arise in the future are recognized in the financial statements in the form of provisions in the current period. Expenses should be recognized in the period in which they are caused, and their recognition should not be postponed until the moment they actually occur.

In order to place provisions in the role of managing non-qualitative costs, it is necessary to evaluate and "recognize" them. The recognition of provisions under IAS 37 implies that the three conditions are met:

- the present obligation;
- the probability of the outflow of resources to settle the obligation;
- a reliable assessment of the obligation.

It is very important that a past event, a sale of products, which created the present obligation towards the buyer, does not leave the company another alternative but to settle the recognized obligation. The probability of the outflow of resources is an assumption justifying the opening of the account - Long-term provisions.

The best estimate of the obligation would be equal to the expenditure needed to settle the present obligation at the balance sheet date. This means that the risks and events that will follow must also be taken into consideration. An assessment is performed by the company's management based on the company's act . If the company has not recognized reserves so far, the best estimate is that based on the competition in the branch. Each company should be obliged to elaborate the issue of provisions since their assessment and the possibility of recognition depend on the situation.

In accordance with the complexity of this account, a wrong or unnecessary recognition often occurs in practice. Business losses are frequently regarded as an obligation although they do not have a past event and it is logical that there will be no long-term provisions. Future business losses can be avoided by using some prevention measures or by selling a part of the business. In order to avoid the overestimation or underestimation of the financial statement positions, a valuation of property objects at purchase prices or at cost prices is carried out. More precisely, financial statements are made in accordance with the prudence principle. Analogously to the prudence principle, the basis for the assessment of long-term provisions should be the principle of reliability, so that there is certainty that the assessment is reliable. The accounting standard IAS 37 insists on a reasonable assessment and if a provision meets the conditions of recognition, it will not be recognized if the estimate of the economic benefits outflow in this case is unreliable.

The engagement of an expert in assessing the provision for the costs in the warranty period plays a very important role. In accordance with the fact that only a professional accountant can provide the quality of financial reporting, specialists for the assessment of long-term provisions can also provide a quality and competent assessment. There is also a need for establishing a link between the accounting policy, the quality policy, and the policy of the engineers who will make an assessment. Therefore, it is necessary to have a perspective not only from the accountant's aspect, but also from the aspect of finance, marketing and engineering. After long-term provisions have been estimated, the amount of the assessment is reviewed each year and, if necessary, certain adjustments are made. Changes may occur on each day of the balance sheet and if it is no longer probable that the settlement of the obligation will require the outflow of economic benefits, the provision should be canceled for the benefit of the revenue.

"Creative financial reporting can seriously undermine the usability of financial statements" (Malinić, 2009, 156; Brandt, Biesebroeck & Zhang, 2012; Đukić & Pavlović, 2014). The provision policy requires constant checking and corrections as a provision must continuously be monitored so as to reflect the best current estimate. Due to uncertainty, the amount of the reservation can be changed. Each correction implies an expense or income, and affects the result. In empirical researches on long-term provisions the companies that improve their performance by increasing long-term reserves are described. An incorrectly displayed end result can create an incorrect image with the investors and redirect them towards investing in another company. It can also

discourage creditors in terms of lending or reduce the value of the shares and dividends if the profit is drastically reduced. Therefore, particular attention should be paid to the assessment of this account in order to minimize the consequences.

When estimating long-term provisions, the effect of money is very significant in some cases, especially if the time limit is longer than a year. The provisions related to the cash outflows that arise immediately after the balance sheet date are of course more valuable than the cash outflows of the same amount that arise later. In such cases, provisions should be discounted.

If the amount of a provision is unrealistically estimated and provisions are overestimated, latent reserves are generated; otherwise, hidden losses are generated. Latent reserves reduce the periodic performance of the business, as it has overestimated the position of liabilities. Due to the impact on the business result, latent reserves are often defined as part of the realized gain which is not reported. The opposite balance category of latent reserves are the hidden losses that are due to the underestimation of liabilities. Underestimated liabilities affect the formation of a lower amount of expenditures in the Income Statement and an increase in the calculated short-term financial result. Any hidden loss in the Balance Sheet is disclosed in the Income Statement in subsequent accounting periods. The disclosure of hidden losses in this case will depend on the rate of maturity. Latent reserves and hidden losses spoil the picture of the financial position of a particular company. Therefore, they should strive to minimize them, i.e. reduce their long-term resilience to their real value.

LONG-TERM PROVISIONS AS A TOOL FOR REDUCING THE CONSEQUENCES OF INADEQUATE QUALITY

New quality requirements increase business risk and make it more and more likely to rely on the resources it has reserved. Customers will be increasingly demanding in terms of reclamation and if the company does not allocate funds in a separate account, it will have to face high costs of inefficiency. In the Republic of Serbia, according to the Rulebook on the Chart of Accounts and the Content of the Account in the Chart of Accounts for Companies, Cooperatives, Legal Entities and Entrepreneurs, there are the following types of provisions within Group 40 - Long-Term Provisions: provisions for expenses in the guarantee term; provisions for the costs of natural resources renewing; provisions for retained bonds and deposits; provisions for restructuring costs; provisions for reimbursements and other employee benefits; provisions for costs of litigation; other long-term provisions[2].

For the purpose of the research study, the most important type of provision is that for expenses in the warranty period, which can protect a company from risky products. The main reason for the formation of a provision for this purpose is to strengthen the position of customers in relation to the manufacturer, as well as the increasing demands and the constant expansion of the product range, the sale of which is followed by giving guarantees.

The fact that it is necessary, not only implicitly, but also explicitly, to manage non-quality costs justifies the subject matter of our research. Figure 2 shows the place of long-term provisions in modern business conditions.

Namely, the possibility of a certain number of requests for the fulfillment of obligations under the given guarantees can create great costs for the company. Due to the risk and uncertainty of the emergence of this obligation, there is a need to allocate certain funds. Namely, the obligation to form a provision for costs in the warranty period arises because the time period of the warranty period exceeds the accounting period in which the sale was made. The past event that is binding on the recognition of this account is the sale of goods, based on which the present obligation, i.e. a promise to cover repair costs within the warranty period, was created. Therefore, it is certain that there will be an outflow of cash, while the amount and the maturity period are uncertain. Determining the amount of a provision is most often based on the

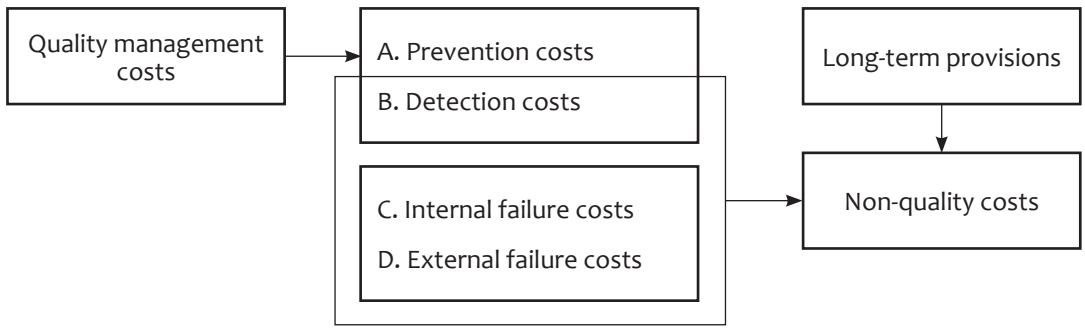

Figure 2 The location of long-term provisions in the cost matrix

Source: Authors

previous experience for the same or similar goods. Bearing in mind the problems that can arise during the inclusion of these business transactions, which are due to an unstable calculation basis and the impossibility of an absolutely accurate allocation of revenues and expenditures, a comparison of accounting practice plays an important role (Malinić, 2009). If there were no previous costs on this basis, the estimate of the provision is made by observing the competition in the same branch. Of course, the amount of the provision depends on the volume of sales, so it is most often expressed in the percentage of the sales realized. Provisions are carried out in groups, i.e. for a product group. However, if a company has a large number of products in its assortment with different probabilities and risks for reclamation, then certain groups of products for which provisions will be recognized should be made. Provided that a company continuously sells the products for which a guarantee is offered, the provision for expenses in the warranty period has the character of a continuous provision.

"By definition, long-term provisions represent liabilities for covering the costs of and risks from previous activities that will emerge in the coming years" (Lukić, 2017, 455). In this sense, the assumption is that long-term provisions are a mechanism by which it is possible to manage the costs of external cancellations efficiently in order to ensure risks from their occurrence. Visibility, or an insight into the flows and processes that continue outside an enterprise, is becoming a very important basis for good business operations. Exposing to a risk of providing product warranties in modern business conditions creates the costs that are very difficult to estimate. "For commercial products, the price and the guarantee are the two key marketing strategies used to increase market share" (Xie, 2017).

The significance of a warranty came to light even decades ago. Namely, J. Mamer (1987) exposed his model of costs and benefits arising from guarantees. The author considered three types of product warranty, as well as the potential damages that result from a lack of quality. His model was the basis for a further analysis of the compromise between the guarantee and quality control.

The study conducted in Greece also highlights the importance of long-term provisions as effective tools for the reduction of non-value costs. According to this study, 89% of long-term provisions play a role in reducing non-quality costs (Chatzipetrou & Moschidis, 2016). According to S. Amberkur and M. M. Jagdtap (2014), long-term provisions depend on the type of guarantee, the reliability of the product, the warranty period and the type of the product. A large number of customers purchase products with an extended warranty, which companies could only provide if they relied on a relevant controlling instrument (Maronick, 2007).

Only a few studies dealing with the impact of long-term provisions on the management of quality costs

have involved companies in the Republic of Serbia. According to R. Lukic (2014), the rate of the return of goods from sales is becoming an increasingly important indicator of the level of consumer satisfaction and the performance of retail chains. By a comparative analysis of the return of goods in the United States and Canada, the author explores the impact of long-term profit reserves and suggests that adequate control should minimize the effect of return. The author conducted a theoretical and empirical analysis of the impact of long-term provisions on the costs of external failure. According to the author, the costs of external provisions need to be managed efficiently in order to obtain as much profit as possible. The author analyzes the cost of the guarantee according to the type of goods and emphasizes the fact that the return or replacement of a product due to its inadequate quality has created high costs in numerous industries. The results of his research show that long-term provisions are an increasingly important factor in retail business performance.

In order to investigate the correlation between long-term provisions and the net profit, the data from the website of the Business Registers Agency of the Republic of Serbia were used to illustrate the companies' business operations. The analysis included the first 100 companies from the list of the most successful enterprises by the net profit in 2017. Not taking into account the other factors, such an analysis should indicate whether the presence of long-term provisions can be connected to business performance. The results of the correlation analysis are given in Table 1.

According to the significance level of 0.000, it can be noted that there is a positive correlation between the observed variables. The value of the Pearson correlation coefficient of 0.472 shows that this relationship is moderate (Cohen, 1988), but certainly statistically significant, which confirms the assumption that long-term provisions can be a useful controlling mechanism when the costs of external failure are concerned in terms of the protection of a company's net profit.

Table 1 The Pearson correlation coefficient

		Long term provisions	Net profit
Long term provisions	Pearson Correlation	1.000	.472**
	Sig	.	.000
	N	100	100
Net profit	Pearson Correlation	.472**	1.000
	Sig	.000	.
	N	100	100

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

Source: Authors

Bearing in mind the fact that in the group of the top 100 most successful enterprises large companies dominate, the difference in the trend is analyzed by the categories: large, medium-sized and small enterprises on the basis of the data from the published financial statements of the Business Registers Agency in the period from 2006 to 2017 (Table 2) in order to obtain the picture of the trend in the enterprises' allocation for long-term provisions (among other things, to cover the costs within the guarantee period).

The small and medium-sized enterprises had approximately the same dynamics of the long-term provisions in the observed period. The biggest relative change compared to the first year occurs in the small enterprises, which also had the highest average annual change in long-term resilience. Namely, in these enterprises, the long-term provisions increased at an average rate of 24.18% per annum. The medium-sized enterprises recorded a slightly lower average annual change (21.27%), whereas the smallest relative change was recorded in the large enterprises, where the average annual rate was 10.75%.

Table 2 Relative changes in long-term provisions (in %), 2006-2017.

Year	Small	Medium	Large
2006.	-	-	-
2007.	41.98%	30.99%	28.68%
2008.	3.10%	36.41%	35.26%
2009.	112.41%	-0.91%	26.92%
2010.	46.18%	11.38%	7.38%
2011.	39.40%	1.73%	2.06%
2012.	-25.08%	35.35%	23.83%
2013.	38.13%	3.00%	12.37%
2014.	-16.49%	88.31%	-23.31%
2015.	-3.77%	17.49%	3.09%
2016.	24.24%	8.36%	18.33%
2017.	5.86%	1.90%	-16.42%
Change 2017/2006	593.05%	583.25%	163.43%
Average annual change	24.18%	21.27%	10.75%

Source: Authors

However, the variance analysis showed that there is no statistically significant difference between the rate of change in the long-term provisions (the significance level being 0.524) in the observed enterprises in terms of the size (Table 3).

CONCLUSION

The importance of the costs of non-quality, and among them especially the costs of external failure, is not only in the period of their occurrence and regarding their size, but also in the consequences that can be caused by their emergence. From customers' points of view, a lack of quality can lead to a failure in a company's business. The costs of external failure arise from the return of products, servicing, reclamations and other interventions aimed at dissatisfied consumers. When non-availability costs are incurred, long-term provisions are activated, the function of which is to reduce the consequences. Therefore, long-term provisions appear as an instrument for the protection from the risks of returned products. As an efficient instrument, they can cover all, or part of the costs arising from returned products. The company is able to respond to complaints, which stops a further reaction of dissatisfied consumers, which would arise if such products were not replaced within the warranty period. When a company is able to replace such products within the warranty period and respond to customer interventions, it can continue its business without any delay. With the help of long-term loans, an enterprise covers the costs incurred and does not incur losses. In this way, a company also influences a reduction in the costs of external failure. Based on earlier guarantees, an enterprise has the right to reserve advanced assets and to secure itself from risks. By managing long-term recessions, a company reduces the consequences caused by the discernment of consumers' inefficiencies, quickens the problem and does not do business at a loss. On the other hand, the consumer is satisfied because there was a timely intervention that met his/her demands.

Table 3 ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1099.123	2	549.561	.660	.524
Within Groups	24989.945	30	832.998		
Total	26089.068	32			

Source: Authors

An effective tool for managing non-quality costs is still being sought. However, based on the research and the authors' conclusions, it can be said that long-term reservations can be a relevant mechanism for managing the costs of external failure as part of the total cost of quality.

In modern business conditions, there is a need to monitor the costs of quality management, especially the costs of external failure, bearing in mind the fact that these costs show a tendency to grow (Anđelković Pešić, 2009). Based on the abovesaid, it is clear that the consequences of a lack of quality are negative. The best argument is that claims do not reflect the true picture of a particular company and create a "halo" effect. This creates a suspicion of the company's business. As the controlling instruments treated as the most sensitive balance sheet, long-term provisions cause a change in costs and affect the financial result. If an entity does not reserve assets, it assumes too much risk to absorb big unnecessary costs, which makes it difficult for it to survive on the market today. The paper emphasizes the fact that the higher amounts of long-term provisions can enable a company to reduce the consequences and manage the costs of external failure, and that long-term provisions can improve a company's business. By highlighting the role of long-term provisions, the awareness of the importance of controlling in the functioning of the company grows.

The introduction of long-term provisions in the field of quality management is aimed at examining the significance of reservation as a mechanism for monitoring and covering the costs of external failure, but also to lay the foundations for further research. Namely, the elimination of non-quality costs before products start being used by consumers is not feasible for every company. For this reason, it is necessary to reduce any potential consequences that may arise from a lack of quality. The paper answers the following questions: does the long-term provision provide security against the risk of external failure costs? Does the management of long-term provisions reduce the consequences resulting from a lack of the quality of a product?

The results of the work done show that long-term provisions are a significant tool for managing the costs of external failure. The initial assumption is that long-term provisions can be an effective tool for managing the cost of quality. The paper analyzes the long-term provisions and the net profit of the first 100 companies on the list of the most successful ones regarding the net profit in the Republic of Serbia in 2017. The results of the correlation analysis show a positive, statistically significant correlation between the long-term provisions and the net profit of the companies. The average annual change in the long-term provisions is the greatest in the small enterprises. The smallest relative change in the long-term provisions in the observed time period (2006-2017) was recorded in the large enterprises, where the average annual rate was 10.75%, which shows that large enterprises give more importance to long-term provisions compared to medium-sized and small ones.

Having in mind the foregoing, it is necessary to affirm the estimation of long-term provisions which will not depend on the length of the business of the company, but will be related to the risk of doing business in an industry. The analysis presented in the paper is also of a public interest because it contributes to an increase in caution and the significance of a real estimate of long-term provisions. To tell the truth, there is no perfect financial reporting, not only in developing countries, but in the countries of developed economies, either. Simply, the business life of each entity is complex and implies a set of the variables that must be considered. Therefore, it is most important that we should be aware of the negative side of the costs of external failure, which will increase prudence in assessing the amount of long-term provisions.

One of the constraints in the implementation of the research study is a relatively small number of studies on long-term provisions in the context of their impact on external failure management. The limitation of the conducted research is also the insufficient transparency of the balance of a sufficient number of enterprises necessary for the implementation of the appropriate empirical analysis. Also, the lack of the data on long-term provisions for costs in

the warranty period makes the link between this category of long-term provisions and the net profit impossible to examine, which would provide a clearer picture of the link between these variables and the impact of long-term provisions in terms of providing protection against the external financial result of a company. An analysis of the observed enterprises' balance, based on which the general conclusions on long-term provisions have been made in the study, is not sufficient to declare the sample representative, and the results of the empirical research study are statistically significant, but the sample can certainly be considered as informative, and the analysis is the basis for further research. Finally, the authors believe that a more complete empirical research study could provide a clearer picture of this mechanism, which would certainly contribute to its importance for managing the costs of external failure.

ENDNOTES

1 Commercial law until IV Directive of the European Economic Community provides a possibility of recognizing provisions for costs incurred in the past year. For example, provisions for the capacity maintenance were made for major repairs, etc.

2 In earlier accounting laws in Serbia, the following provisions could be made: a provision for investment maintenance costs, a flat-rate provision for covering dubious claims, the risk provisions based on the growth of retail prices and foreign exchange rates, the provisions based on revaluation gains, provisions for deferred negative goodwill, etc.

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