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Univerzitetski trg 2, 18000 Niš, Republic of Serbia

Phone: +381 18 257 095    Telefax: +381 18 257 950

e-mail: [facta@ni.ac.rs](mailto:facta@ni.ac.rs)    <http://casopisi.junis.ni.ac.rs/>

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## Contents

**Danijela Stošić Panić**

QUALITATIVE FEATURES OF WOMEN'S ENTREPRENEURIAL ACTIVITY IN  
THE REPUBLIC OF SERBIA: THE SECTORAL DISTRIBUTION PERSPECTIVE .....83-94

**Andela Lazarević, Ivana Marinović Matović**

THE IMPACT OF DEMOGRAPHIC DIFFERENCES  
ON EMPLOYEE SATISFACTION WITH BENEFITS AND PERKS:  
EVIDENCE FROM SERBIAN FINANCIAL SECTOR.....95-110

**Raj Kumar Guntuku, Shravan Boini, Kaustav Mukherjee, Ravi Sankar Kummata**

EFFECT OF EMPLOYER-EMPLOYEE RELATIONSHIP  
ON EMPLOYEE ENGAGEMENT AND TASK PERFORMANCE ..... 111-124

**Nikolina Vrcelj, Darjan Karabašević**

THE MOST INFLUENTIAL ORGANIZATIONAL CHANGE  
MANAGEMENT MODELS FROM 1950 TO 2020 ..... 125-138

**Mayowa Gabriel Ajao, Emmanuel Nosagie Iyekekpolor**

THE IMPACT OF LIQUIDITY MANAGEMENT ON FINANCIAL  
PERFORMANCE OF DEPOSIT MONEY BANKS IN WEST AFRICA..... 139-154

**Tanja Stanišić, Miljan Leković, Sonja Milutinović**

IMPACT OF THE COVID-19 PANDEMIC ON THE ECONOMIC EFFECTS  
OF TOURISM IN CENTRAL, EASTERN AND SOUTHEASTERN EUROPE  
(CESEE) COUNTRIES ..... 155-166



## **QUALITATIVE FEATURES OF WOMEN'S ENTREPRENEURIAL ACTIVITY IN THE REPUBLIC OF SERBIA: THE SECTORAL DISTRIBUTION PERSPECTIVE**

*UDC 005.961:005.914.3  
334.722-055.2*

**Danijela Stošić Panić**

University of Niš, Faculty of Economics, Republic of Serbia

ORCID iD: Danijela Stošić Panić

 <https://orcid.org/0000-0001-5969-6768>

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**Abstract.** *Although growing in volume, women's entrepreneurship is still significantly underrepresented relative to the entrepreneurial activities of men. Moreover, in most of the contexts, quantitative performance of female entrepreneurs are worse, compared to the ones achieved by their male counterparts. Though certainly important, knowing only the quantitative performance of female entrepreneurs is not enough for improving their competitiveness and socio-economic status. Quantitative performance are the results of certain qualitative features of women's entrepreneurial activities, which are often neglected in the public discourse. The aim of the study is to provide an overview of the sectoral structure of women's entrepreneurship from the less studied contexts, such Serbian environment is. Working with data provided by the Statistical Office of the Republic of Serbia, the study empirically tests and supports the hypotheses that there are differences in the sectoral distribution of female and male entrepreneurs in the Republic of Serbia, with Serbian female entrepreneurs being overrepresented in the services sector. Moreover, the results show women's observed participation in the services sector is significantly higher than the one which would be expected given the sectoral structure of the general population of entrepreneurs. The paper discusses its theoretical and practical contributions as well.*

**Key words:** *gender, entrepreneurship, business sector, Serbia*

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**Corresponding author:** Danijela Stošić Panić

Faculty of Economics, University of Niš, Trg kralja Aleksandra 11, 18000 Niš, Republic of Serbia

| E-mail: [danijela.stosic@eknfak.ni.ac.rs](mailto:danijela.stosic@eknfak.ni.ac.rs)

## INTRODUCTION

Because of the importance it has for the improvement of economic position of women, but also for the general socio-economic progress of a society (Brush, Bruin, & Welter, 2009; Carbera & Mauricio, 2017; De Vita, Mari, & Poggesi, 2013; Moreira, Marques, Braga, Ratten, 2019; Sajjad, Kaleem, Chani & Ahmed, 2020; Terjesen & Amoros, 2010), the entrepreneurial activity of women becomes a phenomenon interesting for both the academics and practitioners (Foss, Henry, Ahl, & Mikalsen, 2019; Mitchelmore & Rowley, 2013). Female entrepreneurs are “one of the fastest growing entrepreneurial population” with specific characteristics, which is why they have become a separate branch of research (Foss et al., 2019; Ahl, 2006). Economic empowerment of women and their entrepreneurial activity, as one of the ways to achieve this goal, are one of the indicators of the development of a particular society (Sarfraz, Faghih, & Majd, 2014). Although growing in volume and socio-economic contribution, women's entrepreneurial activity is less pronounced compared to the men's (Salis & Flegl, 2021; Vracheva & Stoyneva, 2020). Based on this fact, it is emphasized that women's entrepreneurship is a necessary, but underused source of economic growth (Kamberidou, 2020; Tsuchiya, 2010; Vossenber, 2013).

Not only is the entrepreneurial activity of women less pronounced, but also those women who are entrepreneurs perform worse, comparatively in relation to their male counterparts (Bardasi, Sabarwal, & Terrell, 2011; Brixiova, Kangoye, & Said, 2020; Klapper & Parker, 2010; Watson, 2002). Moreover, in addition to less favorable quantitatively measured performances, there is also an unfavorable qualitative structure of women's entrepreneurial activity. For example, women are more often *pushed* into the entrepreneurship by necessity such as job scarcity (Chen, Lee, & Alymkulova, 2021; Elam et al., 2021), and they are overrepresented in the more competitive and less lucrative service sector (Mitchelmore & Rowley, 2013; Terjesen, 2016; Zhao & Yang, 2021). This poorer qualitative structure of women's entrepreneurial activity is considered as one of the determinants of the lower performance of their entrepreneurial ventures.

Although women's entrepreneurship is on its way to be empirically revealed, most of the studies are conducted in the developed world, with Anglo-Saxon countries dominating the field (Carbera & Mauricio, 2017; Henry, Foss, & Ahl, 2016). The data from other contexts are missing, thus creating the research gap worth of filling. Female's entrepreneurial activity is under-researched field in Serbia as well. As for the data on the structural composition of the women's entrepreneurship in Serbia, the existing data are at best based on descriptive statistics, without identifying statistical differences in the structure of Serbian entrepreneurial activity by gender and by sector.

Given the importance of the qualitative structure of the entrepreneurial activity for business success of women entrepreneurs, on the one hand, and the lack of statistically based conclusions on the structure of women's entrepreneurship in the Republic of Serbia, on the other hand, the aim of this study is to statistically test the hypotheses about female entrepreneurs' overrepresentation in Serbian service sector.

The remainder of the paper is structured as follows. The first section of the paper provides an overview of the literature on the basis of which hypotheses are defined. The methodological aspects of the study are explained within the second section of the paper, after which the results are presented and discussed. The paper ends with concluding remarks.



## LITERATURE REVIEW

In Serbia, gender inequalities in entrepreneurship are a reflection of the general gender inequality that is present in the political, economic and wider social inclusion of women. Out of the total number of companies and entrepreneurs in the Republic of Serbia, on average in only 28% of cases women are businesses' owners or founders. Women are every third entrepreneur in the Republic of Serbia (31% women vs. 69% men) and they own every fourth company (24% owners vs. 76% owners) (Statistical Office of the Republic of Serbia, 2020b)<sup>2</sup>. Entrepreneurial gender-gap which exists in the Republic of Serbia is consistent with global pattern of women's presence in the entrepreneurship. Gender structure of the entrepreneurial activity on a global level is in favor of men, both within the early entrepreneurial activity and within the established businesses (GEM, 2022). Along with the usual factors that determine the worse position of women in the labor market, such as inadequate women's human and social capital, it is also acknowledged that social norms, values and gender stereotypes are of great importance for less pronounced entrepreneurial activity of women. Thus, for example, Cuberes, Priyanka and Teignier (2019) find that the entrepreneurial gender-gap is wider in the countries of Eastern and Southeastern Europe (former communist countries, including Serbia) partly because of the values towards women in these societies which are typically lower than in the rest of the European countries.

In addition to their lower participation, women-owned and managed businesses perform comparatively worse, as measured by traditional economic and financial measures. Women-owned businesses are smaller, generate less income and profit, close more often, are predominantly focused on small, local markets, and have limited potential for growth (Harrison, Leitch, & McAdam, 2020; Kamberidou, 2013; Parker, 2009; Vossenber, 2013).

Within the strategic, institutional and regulatory framework in the Republic of Serbia, entrepreneurship is recognized as a way to improve women's economic participation and achieve gender equality (Government of the Republic of Serbia, 2015; 2021a; 2021b). However, at the same time, economic policy does not seem to respect the specific position of women. Thus, for example, the gender perspective is not sufficiently incorporated into the official economic policy and measures to support entrepreneurial activity. This conclusion is derived from the fact that there are almost no specific measures to support women entrepreneurs. An analysis of the support programs which are already implemented (for an overview of the programs see: Avlijaš, Vladislavljević, & Popović Pantić, 2012) leads to the conclusion that none of them is specifically developed for the needs of women, nor that any of them proactively promotes women's entrepreneurial activity in more productive or lucrative sectors. A similar conclusion can be reached by looking at the list and content of current programs to support entrepreneurial activity, which shows that out of total of 36 programs, only one is specifically developed to support women's entrepreneurial activity (for a list of this programs see: The Entrepreneurship Portal). Finally, gender analyzes of the entrepreneurship programs (NALED & UN Women, 2019) confirm that there are no clearly targeted and continuous efforts and measures to support the inclusion of women in growing, innovative, profitable or future economies such as green and circular economy. Generally, it can be concluded that current *support* measures are only keeping the status-

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<sup>2</sup> The law of the Republic of Serbia distinguishes between entrepreneurs who are considered to be natural persons and companies which are treated as legal entities.

quo situation, and that, in some cases, they also further deepen the gender-based gap and segregation in the entrepreneurial activity in the Republic of Serbia.

Therefore, data on the intensity of women's entrepreneurial activity are necessary, but not sufficient to achieve the goals in the field of economic empowerment of women. The qualitative structure of the entrepreneurial activity, which is in fact a framework for achieving the quantitative results, is often neglected in the public discourse. The point is that in addition to affirming, promoting and supporting the scope of entrepreneurial activity, the diversification of women's entrepreneurial activity towards higher added value activities must be supported. When this qualitative aspect is neglected, it should come as no surprise that the National Strategy for Gender Equality for the period 2021-2030 (Government of the Republic of Serbia, 2021a) officially admits that measures to improve women's entrepreneurial activity and their economic empowerment have poor results and have not contributed to the closure of the economic gender gap in Serbia. This is a clear call to provide scientifically generated knowledge of the Serbian women's entrepreneurial activity features, which will be an impulse for evidence-based policy within this domain. The present study is answering this call.

It is often pointed out that entrepreneurship is one of the ways to economically empower women. However, some research finds that, on average, self-employed women earn less than those employed for salary, as well as compared to self-employed men (Klapper & Parker, 2010). These data raise the question as to whether promoting entrepreneurial activity without respecting its structure is really a way to close the gender gap in the socio-economic position of women. Entrepreneurship does not seem to be a *panacea* for gender equality (Lechmann & Schnabel, 2012). It is necessary to shape women's entrepreneurial activity in such a way that it becomes a sustainable economic activity that supports the goals of gender equality. This kind of activity would have the potential to generate jobs, increase income and lead to economic and social transformation.

In addition to the quantitative aspect of research and support for women entrepreneurs, it is very important to firstly understand and then to improve the qualitative structure of women's entrepreneurial activity. Although the performance of women entrepreneurs is on average worse than the performance of their male counterparts, it is possible that this gender gap would disappear when business sector is introduced as a control variable. The main argument is that the quantitative performance of women's entrepreneurial activity should not be discussed and evaluated irrespective of its qualitative features. And what is the qualitative structure of women's entrepreneurship?

The majority of Serbian women entrepreneurs are necessity entrepreneurs. Moreover, according to data from the Global Entrepreneurship Monitor's (GEM) Report on Global Entrepreneurial Activity of Women (Allen, Elam, Langowitz, & Dean, 2008), out of 41 countries assessed, Serbia is ranked first in terms of the relationship between opportunity-driven and necessity entrepreneurs, in favor of the later<sup>3</sup>. The potential of the so-called necessity entrepreneurship to contribute to economic growth and personal well-being of entrepreneurs is extremely limited (Acs & Varga, 2005).

Women entrepreneurs are overrepresented in the low- growth and performance industries with a domination of retail and personal services industries (Aidis, 2016; Anna, Chandler, Jansen, & Mero, 2000; Braches & Elliot, 2017; Brixiova, Kangoye, & Said,

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<sup>3</sup> Unfortunately, this is the last GEM report presenting data for the Republic of Serbia.

2020; Gawel, & Mroczek-Dabrowska, 2021; Henry et al., 2016; Lerener & Almor, 2002; Terjesen, 2016;). This horizontal gender-based occupational segregation is manifested as the fact that women entrepreneurs are engaged in activities with lower entry barriers and, thus, in activities in which the intensity of competition is more pronounced (Vossenbergh, 2013). These are mainly service and consumer product activities characterized by lower capital investment (Kamberidou, 2020; Loscocco & Robinson, 1991; Vossenbergh, 2013).

According to the so-called gender queuing theory, women entrepreneurs choose activities that were once dominated by men who leave them due to the reduction of their attractiveness, which then opens the space for women to enter (Bird & Sapp, 2004). Thus, women entrepreneurs mostly realize their entrepreneurial activity in peripheral economic niches in which men entrepreneurs are not interested (Anna et al., 2000; Loscocco & Robinson, 1991). As a result, women entrepreneurs are more represented in activities with lower profit potential and more pronounced competition; activities such as trade and services (Birley, 1989; Bowen & Hisrich, 1986; Brixiova & Kangoye, 2020; Buttner, 1993; Coleman, 2000; Gawel & Mroczek-Dabrowska, 2021; Kamberidou, 2020; Hisrich & Brush, 1984; Manolova, Brush, Edelman, & Elam, 2020; Orser & Hogarth-Scott, 2002; Robichaud, Zinger, & LeBrasseur, 2007; Rodríguez & Santos, 2009; Tsuchiya, 2010; Verheul & Thurik, 2001). Based on the previous, the following hypotheses are developed.

H1a. Distribution of female and male entrepreneurs differs across Serbian business sectors.

H1b. Serbian female entrepreneurs are overrepresented in the services sector.

## METHODOLOGY

### 2.1. Data and Variables

Serbian official statistical reports (Labor Force Survey and Report on Women and Men in Serbia) are used as source of data on structure of Serbian entrepreneurs by their gender and sectoral involvement. Both of the used documents are reporting data for 2019.

Although there is more or less an agreement that an entrepreneur is a person who identifies, evaluates and exploits business opportunities (Shane & Venkataraman, 2000), the things are not so clear when it comes to operationalization of an entrepreneur as a research variable. Moreover, they become more complicated when the term entrepreneur is used to mark different things, depending on whether it is used for research, legal, tax or some other purpose (Hughes, 2005). Nevertheless, the owners of micro, small and medium sized enterprises as well as the self-employed persons, are most commonly proxies for entrepreneurs in the studies on entrepreneurship (Foreman-Peck, 2005; Parker, 2009; Spencer & Gomez, 2004). The problem of choosing the measure for the entrepreneur variable, researchers often solve by choosing the one for which they have available data (Parker, 2009). As the availability of data determines the existence of the study itself, present study uses Serbian official statistical documents, as the most complete and accurate source of data on the subject.

Serbian Labor Force Survey recognizes self-employment as one of the employment statuses (salaried employees and helping household members, being the other two forms). Therefore, the self-employed persons are considered to be entrepreneurs for the purpose of this study. "Self-employed are persons who work independently in their own company, institution, private shop or on agricultural property, as well as persons who

perform independent professional activity or some other work for own account” (Statistical Office of the Republic of Serbia, 2020a, p. 64). In the used data sources, employment is measured in the following sectors: agriculture, industry, construction, and services.

## 2.2. Methods

As the sectoral distribution of the entrepreneurs is a categorical variable, the Chi-square test of independence was used to explore whether any statistically significant difference exists in sectoral distribution of Serbian female and male entrepreneurs. Moreover, the Chi-square goodness of fit test is used to assess whether the observed sectoral distribution within the population of female entrepreneurs corresponds to the one which would be expected based on the sectoral structure of the total entrepreneurial population. In other words, this test was used to assess whether there is an overrepresentation of women entrepreneurs in certain sectors.

## RESULTS AND DISCUSSION

A Chi-square test of independence was performed to examine the relation between gender and the sector of the self-employed persons in Serbia. Table 1 summarizes results on sectoral distribution of self-employed women and men in Serbia.

**Table 1** Self-employed in Serbia, by sectors and gender

		Females	Males	Total
Agriculture	Count	61	203	264
	% within Sector	23.1%	76.9%	100.0%
	% within Gender	30.3%	43.8%	39.7%
	% of Total	9.2%	30.5%	39.7%
Industry	Count	10	36	46
	% within Sector	21.7%	78.3%	100.0%
	% within Gender	5.0%	7.8%	6.9%
	% of Total	1.5%	5.4%	6.9%
Construction	Count	0	38	38
	% within Sector	0.0%	100.0%	100.0%
	% within Gender	0.0%	8.2%	5.7%
	% of Total	0.0%	5.7%	5.7%
Services	Count	130	187	317
	% within Sector	41.0%	59.0%	100.0%
	% within Gender	64.7%	40.3%	47.7%
	% of Total	19.5%	28.1%	47.7%
Count		201	464	665
% of Total		30.2%	69.8%	100.0%

Source: Author's calculations based on data available in Serbian Statistical Office, 2020a, 2020b

The results show significant relation between these variables,  $X^2(3, N = 665) = 41.857$ ,  $p = .000$ .

Table 2 presents the results of the Chi-square goodness of fit test of the difference between the observed and the expected sectoral distribution of female and male entrepreneurs.

**Table 2** Observed and Expected Frequencies of Self-employed in Serbia, by sectors and gender

		Observed	Expected	Residual
Females	Agriculture	61	84.6	-23.6
	Industry	10	14.4	-4.4
	Services	130	101.9	28.1
Males	Agriculture	203	184.2	18.8
	Industry	36	31.4	4.6
	Construction	38	26.5	11.5
	Services	187	221.9	-34.9

Source: Author's calculations based on data available in Serbian Statistical Office, 2020a, 2020b

As it can be noticed, female entrepreneurs are overrepresented in the services and underrepresented in all other sectors ( $X^2(2, N = 201) = 15.679, p = .000$ ). The opposite is true for their male counterparts ( $X^2(3, N = 464) = 13.052, p = .005$ ).

Clearly, results support both of the hypotheses about the sectoral structure of the entrepreneurial activity of women and men in the Republic of Serbia. There are evident and statistically significant differences in the sectoral distribution of female and male entrepreneurs. Though the services sector absorbs the majority of the entrepreneurs in general (47.7%), the sectoral structure of male entrepreneurs is more evenly distributed. While two thirds of female entrepreneurs are engaged in the services sector (64.7%), less than half of the male entrepreneurs (40.3%) are doing business in this sector. Moreover, results show that when compared to the sectoral distribution which could be expected on the basis of the distribution of the entire population of entrepreneurs, the sectoral distribution of female entrepreneurs significantly differs. The observed participation of the female entrepreneurs is significantly lower than the one which could be expected in the agriculture and the industry sector, while it is significantly higher in the services sector. Quite the opposite is true for the group of male entrepreneurs.

Female entrepreneurs are overrepresented in the services sector, and this is one of the most common observations of entrepreneurship scholars (Mitchelmore & Rowley, 2013; Sullivan & Meek, 2012). Thus, the results of the present study complement the ones presented by other scholars researching or reviewing results from other national contexts (for example: Agussani, 2020; Bruni, Gherardi, & Poggio, 2004; Byrne, Fattoum, & Diaz Garcia, 2019; Ghouse, McElwee, & Durrah, 2019; Kumar, 2015; Mitchelmore & Rowley, 2013) and they are somewhat proof of the existence of the *female-type* of business activities in Serbia as well. This unfavorable sectoral distribution of the female entrepreneurs can lead to the conclusion that women are not less capable and less productive by default, but that they are predominantly represented in less profitable business sectors with strong competition. And the results confirm that they are dominantly engaged exactly in this kind of sector. The unfavorable qualitative structure of women's entrepreneurial activity is indicated by the existence of gender-based segregation in the entrepreneurial activity. Thus, women are predominantly and disproportionately represented in the services sector. Moreover, not just that they are overrepresented in the competitive service sector, but the majority of them own and manage micro-enterprises (Babović, 2012). And exactly these types of businesses are most vulnerable in terms of survival and value generation for stakeholders. This is one more argument in favor of the gender queuing theory. As Reskin and Roos (1990) postulate, there are two types of queues in the labor market: the *labor queues* and the *job queues*. While the former means that employers rank potential

employees, the latter is referring to ranking of jobs by the employees. Men become less interested for occupations in which rewards decline, relative to some other occupations which require similar qualification. Occupations with declining rewards then become more open for women to step in. Financial rewards in an occupation are not the only criterion men use to rank a job in a queue. A job will become worse ranked by men when its financial rewards are reduced, but also when it becomes less secure, prestigious and when it offers less mobility opportunities. As a consequence, some occupations become extensively male-dominated which enforces or reinforces gender-based stereotypes regarding the occupations which are (in)appropriate for women. As less attractive, most service industries are not a priority choice for men. These activities then offer more space for women entrepreneurs to enter. Also, this choice of women entrepreneurs is further intensified by the existing gender stereotypes that *push* women into the service-oriented activities which are considered to be more appropriate for them.

### CONCLUSION

The results of the present study support both of the hypotheses referring to the sectoral distribution of women entrepreneurs. There is a statistically significant difference in the sectoral structure of women's and men's entrepreneurship in Serbia, with women entrepreneurs being relatively more engaged in the services sector. Moreover, women's observed participation in the services sector is significantly higher than the one which would be expected given the sectoral structure of the general population of entrepreneurs.

This paper contributes to the theory and practice in several important ways. First, the present study is answering the call to explore not only the quantitative performance of women entrepreneurs, but the qualitative aspects of their activities as well. The study supports the argument of the less favorable qualitative structure of female entrepreneurial activity. Thus, it strengthens the notion of the need for women's entrepreneurial activity to be researched and evaluated holistically, quantitatively and qualitatively. As it is the case in the wage employment sector, the less attractive industries are left by male entrepreneurs to be entered by their female counterparts. Therefore, the overrepresentation of women entrepreneurs in the services industries can be understood within the gender queuing theory perspective. Moreover, the study brings evidence on women's entrepreneurship from less researched context such as Serbia. This complements the existing body of knowledge and helps in getting the full perspective of the phenomenon of women's entrepreneurship.

Second, the study's results enrich the knowledge on women's entrepreneurship in Serbia. Despite its growing importance, women's entrepreneurial activity is still insufficiently researched, especially in underdeveloped and developing countries. Research on women's entrepreneurial activity in developing countries is most often conducted on small and unrepresentative samples (De Vita et al., 2013). This situation should not be surprising, given that researchers on this issue in their countries are often pioneers who do not have gender-sensitive official statistics to support their research (Brush & Cooper, 2012). Unfortunately, Serbia is no exception on all these issues. Despite the growing political and media interest in women's entrepreneurial activity in Serbia, it is still a research niche. Thus, for example, the analysis of papers identified by searching in relevant index databases (WoS, Scopus and SCIndeks) leads to the conclusion that there are not more than 50 papers dealing with the female entrepreneurship in Serbia. Moreover, the identified papers are mainly based on the

analysis of data which were collected in small, unrepresentative samples, and most of the papers are descriptive in nature.

Third, the study provides much-needed data for evidence-based policies to support women's entrepreneurial activities in Serbia. It statistically proves that differences in sectoral representation of female and male entrepreneurs in the Republic of Serbia not only exist, but are also significant. Thus, in order to ensure that women's entrepreneurial activity really contributes to the improvement of their economic and social position and to the achievement of other gender equality goals it is obviously necessary to define measures to improve the sectoral distribution of women entrepreneurs. Though needed, a detailed discussion of policy implications and entrepreneurial support measures is out of this paper's focus. Policy measures should tackle structural shortcomings of the entrepreneurial ecosystem so that women can provide resources needed for their entrepreneurial engagement, such as financial capital, knowledge and networks (Coleman & Robb, 2018). On a more general level and in line with Dennis's (2011) policy framework, it can be argued that it is necessary to act systematically and extensively in order to improve both the numbers and the qualitative features of women's entrepreneurship in Serbia. In other words, it is important to create affirmative and supportive both the institutional and the cultural environment for women's entrepreneurship.

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## **KVALITATIVNE KARAKTERISTIKE PREUZETNIČKE AKTIVNOSTI ŽENA U REPUBLICI SRBIJI: PERSPEKTIVA SEKTORSKE DISTRIBUCIJE**

*Iako raste u obimu, preduzetnička aktivnost žena je i dalje značajno manje zastupljena u odnosu na preduzetničku aktivnost muškaraca. Pored toga, kvantitativne performanse preduzetnica su u većini okruženja loše u odnosu na one koje ostvaruju preduzetnici. Iako je poznavanje kvantitativnih performansi svakako značajno, ovo nije dovoljno kako bi se ostvarili ciljevi unapređenja njihove konkurentnosti i socio-ekonomskog položaja. Kvantitativne performanse su rezultat određenih kvalitativnih karakteristika preduzetničke aktivnosti žena koje su često zanemarene u javnom diskursu. Cilj ove studije je da pruži uvid u sektorsku distribuciju preduzetničke aktivnosti žena u Srbiji. Koristeći podatke koji su dostupni u zvaničnoj statistici Republike Srbije, studija empirijski testira i potvrđuje hipoteze o tome da postoje razlike u sektorskoj distribuciji preduzetnika i preduzetnica u Republici Srbiji, pri čemu su preduzetnice natprosečno zastupljene u sektoru usluga. Takođe, rezultati ukazuju na to da je učešće preduzetnica u ovom sektoru je statistički značajno veće u odnosu na njihovo relativno učešće koje se očekuje na bazi sektorske distribucije preduzetnika generalno. U radu se daje prikaz i njegovog teorijskog i praktičnog doprinosa.*

Ključne reči: *rod, preduzetništvo, sektor poslovanja, Srbija*

## **THE IMPACT OF DEMOGRAPHIC DIFFERENCES ON EMPLOYEE SATISFACTION WITH BENEFITS AND PERKS: EVIDENCE FROM SERBIAN FINANCIAL SECTOR**

*UDC 005.32:331.101.32*

**Andela Lazarević<sup>1</sup>, Ivana Marinović Matović<sup>2</sup>**


<sup>1</sup>University of Niš, Faculty of Mechanical Engineering, Republic of Serbia

<sup>2</sup>PUC Parking Service – Niš, Republic of Serbia

ORCID iD: Andela Lazarević

 <https://orcid.org/0000-0003-3071-5157>

Ivana Marinović Matović

 <https://orcid.org/0000-0002-8273-4096>

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**Abstract.** *After the downfall of socialist regimes, human resource management systems in transition countries like Serbia were transformed, establishing entirely new employee compensation system. In this paper, the most common benefits and perks in the Serbian financial sector, as well as their significance for the employee satisfaction are explored, with the focus on the effectiveness of its structure. The investigation of differences in impact of benefits and perks on employee satisfaction is performed with respect to gender, education, age, and job position of the respondents. The empirical research is conducted by a survey questionnaire. Results suggest that there are no differences in employee satisfaction between respondents of different genders, and education, while partial differences in employee satisfaction are confirmed with respect to age, and job position. The results indicate that benefits and perks in Serbian financial sector should be better structured, and provide guidelines for the investigation of more favorable total compensation package.*

**Key words:** *benefits, perks, employee satisfaction, compensation packages, human resource management*

**JEL Classification:** C830, C60, J33

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**Corresponding author:** Andela Lazarević

Faculty of Mechanical Engineering, University of Niš, Aleksandra Medvedeva 14, 18000 Niš, Republic of Serbia

| E-mail: [andjela.lazarevic@gmail.com](mailto:andjela.lazarevic@gmail.com)

## I. INTRODUCTION

It is a long way from early industrial employment conditions to the contemporary compensation packages aimed to remunerate any work or task in today's work environment. In addition to employers evaluating their employees, employees are increasingly able to value their employers. This is why engaging and adequately structured compensation packages are important for business organization, to attract and retain employees, which are the key to competitive, profitable and sustainable business (Bessette, 2014). Salary is generally a basic component of the overall compensation package, but not enough to motivate and retain key employees (Rowland, 2011; Marescaux et al., 2013). Benefits and perks, in addition to salary and short and long-term incentives, are the basic components of the employee's compensation system in developed economies. Benefits and perks do not represent a reward for the results achieved; they are a reward for affiliation to the organization (Ellig, 2014; Armstrong, 2009).

Benefits have multiple functions in the organization. Benefits are reflection of social justice, and the value that employees achieve based on their contribution to the organization. Benefits encourage competition between organizations and contribute to attracting and retaining employees (Herman, 2019; Carter, 2008; Zhou et al., 2009). They provide control over the costs of compensation system in the organization and improve the organizational reputation due to the care of employees. Benefits include, but are not limited to, pension and health insurance, life insurance, a company car, as well as certain special benefits. Certain benefits are a legal obligation, such as social insurance, unemployment insurance and compulsory health insurance. There are benefits that provide a balance of work and private life (holiday pay, paid leave on various grounds), as well as other allowances of a material nature, paid dental services, transportation costs, mobile phones, and similar allowances (Armstrong, 2009; Lee et al., 2006; Zhou et al., 2009). Depending on the business organization, certain benefits can be offered to both employees and their family members.

Perks are assigned to managerial or other specific positions in the organization. They represent additional benefits that do not exist in the benefit program for all employees. Perks are determined depending on the position in the organizational hierarchical structure, and to a certain extent they are viewed as power symbols. The following perks can usually be found in the compensation package: company car, financial advisor (for the purpose of private investments and tax savings), voluntary privately funded pension or health insurance for management. Perks can vary between business organizations, may include paid vacation at resorts, paid meals at expensive restaurants, personal use of a company vehicle, paid childcare, professional associations' and clubs' membership, and other perks provided by business organizations for their managers. These perks have significant material value, and managers achieve significant benefits through them. Some authors believe that rewarding managers with perks facilitates and improves their work and encourages productivity (Pržulj, 2011; Rajan & Wulf, 2006).

Many countries of Central and Eastern Europe faced the rapid development of the socialist government and society after the World War II and this trend managed to last for almost 50 years, depending on the country. This significantly affected the way of life in those countries, as well as all segments of social, cultural, political, and economic development. That is why the fall of Berlin wall and the collapse of Soviet Union were the trigger for a sudden downfall of socialist regimes in Central and Eastern Europe countries. Some countries recovered faster and implemented substantial economic reforms, while others still lag behind in these reforms

(Svejnar & Uvalic, 2012). Serbia unfortunately belongs to those transition countries that had to learn to adapt to new circumstances the hard way, due to the civil war, international sanctions, hyperinflation, NATO bombing and many other unfortunate events that were interrelated.

The compensation practices in Serbia, as in other Central and Eastern European countries, are being transformed, while Serbia faced with changed labor market developments, new management techniques, and various structure of compensation packages, including benefits, as one of the reward components (Marelli & Signorelli, 2010; Lewis, 2005; Festing & Sahakiant, 2013). However, this topic is usually addressed by lawyers and theorists interested in regulative framework and possibilities of various compensation structures (Draskovic & Andrejevic, 2021).

In the present study, the impact of certain components of the compensation system on employee satisfaction was examined, to provide new insights into how particular benefits and perks affect satisfaction in the workplace, depending on gender, education, age, and job position of employees. Despite the interest in this field from scientific and professional public increased in recent years (Radovanovic, 2021), in particular the deeper study of benefits and perks, as compensation components, is missing (Festing & Sahakiant, 2013; Morley et al., 2012). There are important limitations in the literature regarding the most desired benefits and perks, depending on employees' gender, education, age, and job position. The present study copes with this gap in knowledge, which may benefit the development of tailored benefits and perks for certain subgroups of employees, with the emphasis on their gender, educational, age or job differences.

Based on the defined research problem of current study, employee satisfaction was determined as a dependent variable. The research was based on the subjective perception of employees that a particular benefit or perk affects their satisfaction in the workplace. In the current study, the influence of different demographic characteristics on employee satisfaction as a dependent variable was analyzed. Demographic characteristics of respondents (gender, education, age, and job position) were independent variables. The research was based on the assumption that the observed demographic characteristics affect employee satisfaction with particular benefits and perks, as common components of compensation. The current study makes constructive contributions by giving recommendations to the business community, decision makers and other actors in the financial sector, to consider different aspects of employee satisfaction when implementing benefits and perks in compensation packages.

## 2. LITERATURE REVIEW

Despite the lack of the scientific literature dealing with the specifics of the Serbian employee compensation policies, there have been numerous studies done by scholars in the academic world regarding the relationship between compensation and motivation, as well as the relationship between the motivation and achieved business performances in general (Adeoye, 2019). Mansor et al. (2012) in their study explored the relationship between employee satisfaction and motivation with different compensation components (salary, insurance benefits). They found significant positive correlation, proving that compensation is a predictor of high work motivation and job satisfaction. This was confirmed by Islam & Saha (2001) research, studying the satisfaction of bank employees in Bangladesh, and Jehanzeb et al. (2012). Danish & Usman (2010) confirmed that the strongest factor motivating employees is an adequate compensation model, and Shafiq &

Naseem (2011) concluded that a poorly designed compensation model leads to dissatisfaction and low employee motivation. There are no significant differences in employee motivation and satisfaction depending on gender (Vlosky, 2009), but the impact of compensation on job satisfaction and motivation is more pronounced in older employees (Douglas et al., 1991).

The impact of benefits on employee satisfaction and motivation is significant and positive (Uppal, 2005). Benz (2005) came to the same conclusion, emphasizing the special importance of benefits. Benefits that guarantee employees flexibility through various forms of work, have a strong motivational impact on talented members of the business organization (Hitka et al., 2015; Schlechter et al., 2015). In contrast to the previous, Munap et al. (2013) and Mabaso & Dlamini (2017) concluded that the benefits offered by the organization are not able to fully motivate employees. According to another study, benefits have an ambivalent effect; they have neither a positive nor a negative influence on employee satisfaction and their work engagement (Slavic et al., 2019).

Nthebe et al. (2016) in their study investigated the relationship between benefits, motivation and work efficiency. The analysis confirmed that the correlation between benefits and work motivation is strong and positive, which significantly affects the growth of efficiency at work. Muse & Wadsworth (2012) studied the relationship between non-traditional benefits and employee motivation. The conclusions of their research confirmed the strong motivational effect of these benefits, and the positive impact on employee work motivation. Benefits that provide security to employees significantly increase work motivation (Hulkko-Nyman et al., 2012). Muse & Wadsworth (2012) studied the motivation with benefits depending on respondents' gender, and found that the differences were not statistically significant.

Nemeckova (2017) found in her research that benefits have an impact on employee motivation and their work results, although not directly, because many employees consider certain benefits to be guaranteed. Some benefits have a constant significant impact on employee motivation, primarily various forms of education and professional development. Khan (2012) suggested a greater impact of individual benefits on motivation, while training and development and motivation are closely related, and have a strong positive impact on business performance. Ozkeser (2019) confirmed a positive association between employee training and development and their motivation.

Niehaus (2008) confirmed that benefits, in the form of pension insurance, as a component of compensation package, has a positive impact on employee productivity. This opinion is prevalent in research also by other authors. The positive impact of benefits in the form of pension insurance on employee satisfaction and motivation is confirmed in the works of Kozarevic et al. (2014), while pension insurance schemes motivate employees to improve work results (Dugguh & Iliya, 2018). Contrary to the above claims, Fashagba & Adeyele (2011) believe that pension insurance has little impact on employee motivation and their perception of work.

The impact of benefits on employee satisfaction and their work engagement is somewhat limited (Kulikowski & Sedlak, 2020). However, gender differences are important for defining the optimal compensation model, primarily because certain benefits (tangible, intangible, or combined) may affect employee performance differently, depending on gender (Sittenthaler & Mohnen, 2020). Galanaki (2020) also confirms the greater importance of benefits for female employees. Benefits significantly affect the satisfaction of female employees, and this is especially pronounced in crisis conditions. During a recession, if the share of benefits in compensation packages decreases, it significantly affects female employees, so organizations have to adequately allocate certain components of compensation in crisis conditions (Galanaki, 2020).

In the Republic of Serbia, different types of benefits are available to employees, depending on the business organization, length of employment, job position, and other factors. In general, all employees have access to legally guaranteed benefits, pension and health insurance, maternity leave, and others that are binding on employers. The most frequently used benefit is maternity leave, which is used by employees in 77.8% of business organizations (Berber, 2015).

Research study from 2012 confirmed that the benefits and perks for employees, especially in managerial positions, include: professional training and development, flexible working hours, mobile phone, laptop and company car for private use, as well as paid additional health insurance, for interventions not covered by compulsory health insurance. Additional perks may include private pension insurance, life insurance, membership in professional associations (Marinović Matović, 2012).

A 2018 study confirmed that 38% of business organizations include various categories of intangible benefits in compensation packages (Berber & Slavic, 2018). Basic, statutory benefits include pension and health insurance, while additional benefits are provided by the business organization, from its own resources.

Based on the literature review, the following hypotheses are developed, explored and analyzed based on the adopted methodology:

- H1. There are gender differences in employee satisfaction with benefits and perks
- H2. There are educational differences in employee satisfaction with benefits and perks
- H3. There are age differences in employee satisfaction with benefits and perks
- H4. There are job differences in employee satisfaction with benefits and perks
- H5. Education is the most desirable benefit, regardless of employee demographics

### 3. METHODOLOGY

Empirical research for this study was carried out with the aim to explore the significance of benefits and perks for the employee satisfaction. This research was conducted in Serbian financial sector by a survey questionnaire. Demographic characteristics, such as gender, level of education, age and current job position, were explored through the first part of the questionnaire. The second part of the questionnaire was focused on the effect of common benefits and perks on employee satisfaction. This part of questionnaire was structured based on the authors' experience coupled with the literature investigations, especially considerations of Nemeckova, who identified benefits that are the most often present in financial sector in Central and Eastern European countries (Nemeckova, 2017). Following benefits/perks were investigated: paid education and language courses, cell phone, notebook, professional stays and traineeships, pension insurance, health insurance, life insurance, legal services, and other benefits/perks. To assess their effect, respondents were asked to rank each benefit/perk by its importance, assigning a certain number of points per each item, whereby the benefit that strongest satisfied them was assigned with the maximum number of points (9), next benefit by its influence was assigned with 8 points, and the benefit with the weakest effect on their satisfaction was given 1 point. This made it possible to determine the significance of each benefit or perk for the respondents.

The survey was conducted in period of 3 months, from October 2020 till December 2020. Questionnaires were distributed to financial organizations being active at the territory of Serbia, addressing their employees. Serbian financial sector consists of following organizations: banks, insurance companies, investment and voluntary pension

funds, broker-dealer and leasing companies, as well as other legal entities that are engaged in financial activities (Law on Banks, 2005). Empirical study was carried out on the entire territory of the Republic of Serbia. The target population consisted of employees of organizations that provide financial services, including monetary intermediation, insurance services, reinsurance, pension funds and subsidiary activities in the financial services field. The research did not include employees in other organizations of the financial sector, dealing with the following activities: activities of holding companies, activities of trust funds (trusts), investment funds, and similar financial entities. Based on available data of the Republic Bureau of Statistics, the target population of the research could not be determined precisely, since it included the number of employees in the entire sector of financial and insurance activities, while the current study covered only part of organizations operating in this sector (Republic Bureau of Statistics, 2021).

Prior to processing and data analysis, testing of distribution was performed. Kolmogorov-Smirnov and Shapiro-Wilk normality tests revealed the significance level  $>0.05$  for all observed variables, which means that sample population wasn't normally distributed.

Before testing the defined hypotheses, the sample size validity, and the statistical power of the research were analyzed. The sample power was calculated post-hoc, using G\*Power (Faul et al., 2009), whose values indicate good ( $>0.95$ ), sufficient ( $0.95-0.85$ ), and weak ( $<0.85$ ) statistical power. Calculated power of two-tailed independent t-test (Wilcoxon-Mann-Whitney test) for between-subjects, assuming an effect size of 0.5, and an alpha error of 0.05, with sample size group 1 of 80 respondents (male), and sample size group 2 of 101 respondents (female), was 86.99% (for the whole sample). The calculated power for research sample, based on education, was 62.53%. Calculated power of Kruskal-Wallis test, assuming an effect size of 0.25, and an alpha error of 0.05, with total sample size of 181 respondents, divided into 3 groups, was 85.67%, and for the four groups (based on job position), calculated power was 80.64%.

In order to test the research hypotheses, and explore the potential gender and educational differences in employee satisfaction with benefits and perks, a nonparametric Mann-Whitney U test was used. Mann-Whitney U test compares differences between two independent groups, requiring the ordinal or continuous dependent variable, without normally distributed values. Regarding education, employees were divided in two groups. The first group consisted of employees who had high school degree; the second group was the ones who had graduated from university.

Further, the importance of particular benefits and perks for employee satisfaction was tested, depending on their age and job position. Age and job position differences were analysed with non-parametric Kruskal-Wallis Test, a nonparametric test that is used to explore the differences between two or more groups, requiring a continuous or ordinal dependent variable. The age range included employees belonging to three age groups:  $\leq 33$  (young and new hires), 34-50 (prime-aged employees), and  $\geq 51$  (mature employees). Concerning job position, employees were divided in four groups: Ordinary (job position of common occurrence), Specialist (professional who uses specialized knowledge within a particular subject area), Middle management (management positions underneath the top management and above the non-management employees), and Top management (senior-level executives, those positions that hold the most responsibility).

The defined subject of research and the hypotheses were methodologically processed by standard statistical tests, with the analysis performed using the statistical package SPSS (IBM SPSS Statistics 22 software). The statistical power analysis was performed with the use of G\*Power 3.1.



## 4. RESULTS AND DISCUSSION

The research involved 181 employees engaged in various operational and managerial positions in the Serbian financial sector. Descriptive statistics of the selected sample are shown in Table 1.

**Table 1** Descriptive statistics of the examined sample (n=181)

Variable	Characteristics	Frequency	Percent	Cumulative percent
Gender	Male	80	44.2%	44.2%
	Female	101	55.8%	100.0%
Education level	High school	29	16.0%	16.0%
	University	152	84.0%	100.0%
Age	≤33	13	7.2%	7.2%
	34-50	60	33.1%	40.3%
	≥51	108	59.7%	100.0%
Job position	Ordinary	40	22.1%	22.1%
	Specialist	71	39.2%	61.3%
	Middle management	64	35.4%	96.7%
	Top management	6	3.3%	100.0%

*Source:* Authors' calculation

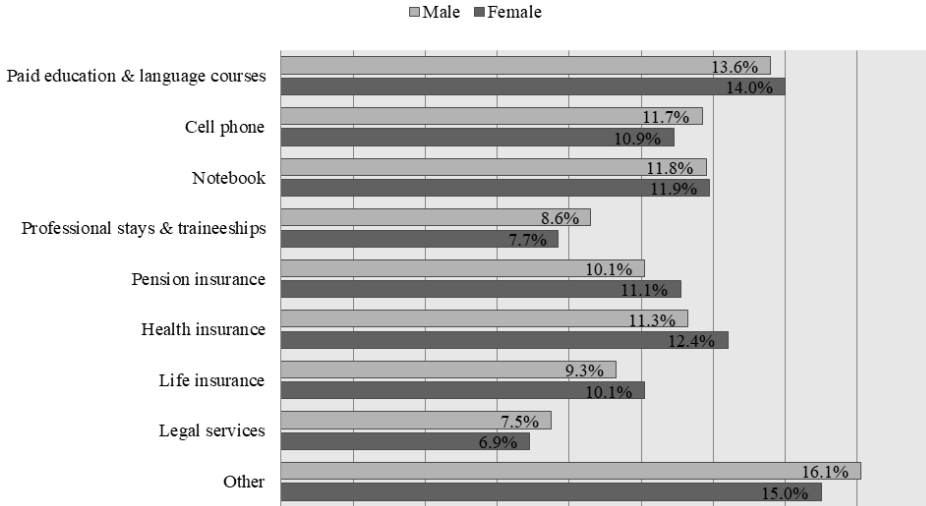
This research of the most frequently applied benefits and perks in the Serbian financial sector in 2020 has shown that benefits are the basic components of the compensation package in Serbia, as it is a case in many developed economies, according to Ellig (2014). The results also show a various structure of benefits and perks in the Republic of Serbia, which confirmed the findings of Festing & Sahakiants (2013), regarding the different structure of compensation packages in transitional countries.

The investigation of differences in impact of benefits and perks on employee satisfaction was performed by investigating respondents by gender, education, age and job position. Descriptive statistics of gender differences are shown in Figure 1, while the descriptive statistics of educational differences are shown in Figure 2.

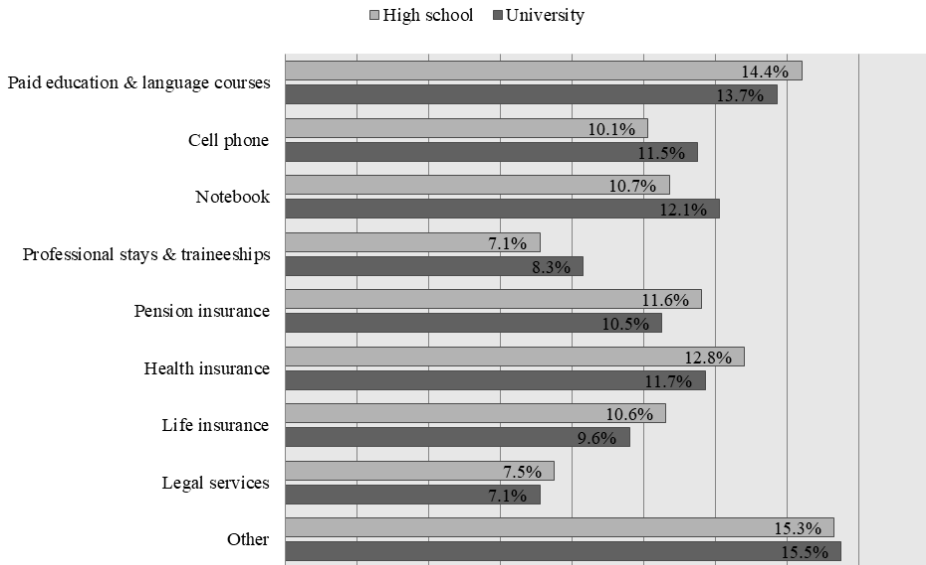
As shown in Figure 1, both female and male employees ranked „paid education & language courses” as the most desirable benefit. Also, “paid education & language courses” are in the first place in Figure 2, which represents the results with respect to employee education.

To analyze gender and educational differences in employee satisfaction with benefits and perks, non-parametric Mann-Whitney Test was utilized. The results indicate that there was a slight difference in mean ranks, where female employees are favoring following benefits: paid education & language courses, notebook, pension insurance, health insurance and life insurance. Regarding male employees, they give priority to: cell phone, professional stays & traineeships and legal services. Mann-Whitney Test for educational differences indicates that employees with high-school education give priority to following benefits: paid education & language courses, pension insurance, health insurance, life insurance and legal services. University educated employees are more satisfied with cell phone, notebook and professional stays & traineeships. Mean ranks are slightly different between these two subgroups of employees. According to Mann-Whitney test, both gender and educational differences in employee satisfaction with benefits/perks are not statistically significant ( $p > 0.05$ ), so hypothesis H1 and H2 are rejected. This suggests that there are no differences in employee

satisfaction with benefits/perks between respondents of different genders and education. A similar conclusion was drawn from the study of Muse & Wadsworth (2012), who did not find statistically significant gender differences in employee satisfaction with benefits. Result regarding educational differences should be accepted as conditional, given the low statistical power (62.53%), caused by the small size of the sub-sample “employees with high school”.

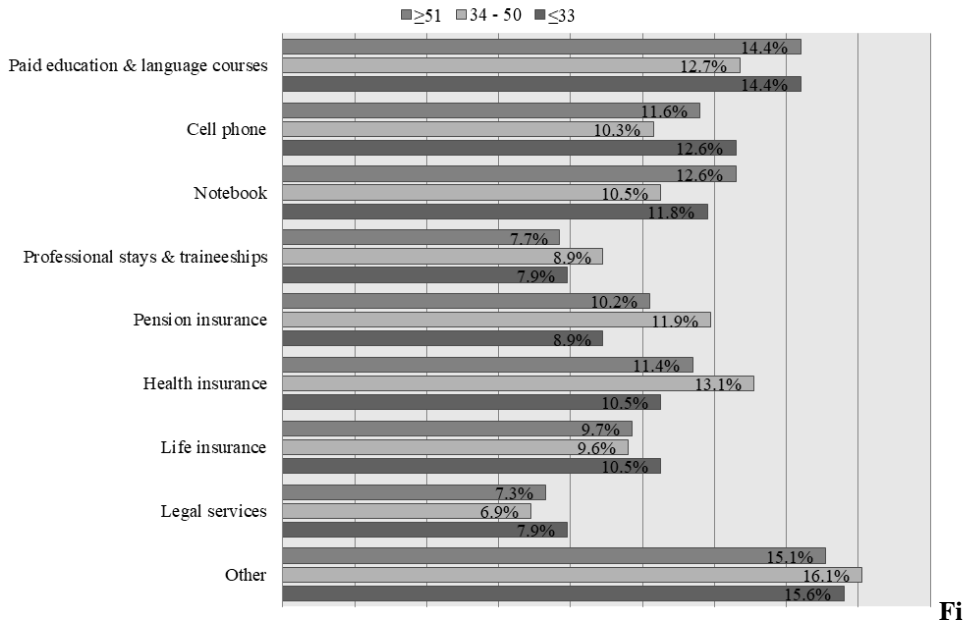


**Fig. 1** Most desirable benefits and perks depending on gender  
 Source: Authors' calculations



**Fig. 2** Most desirable benefits and perks depending on education  
 Source: Authors' calculations

Building on these conclusions, an analysis was performed to assess the most desirable benefits and perks of financial sector employees, depending on their age. Results are presented in Figure 3.



**g. 3** Most desirable benefits and perks depending on age

*Source: Authors' calculations*

As shown in Figure 3, many similarities exist between employees in group “ $\geq 51$ ” and employees in group “ $\leq 33$ ”. These two subgroups of employees rank “paid education & language courses”, “notebook” and “cell phone” among the top three benefits. All subgroups of employees agree that “paid education & language courses” are among the most desirable benefits. This benefit generally takes the first place in all age groups. Only employees aged 34-50 in the Serbian financial sector ranked this benefit in second place, just behind “health insurance”. Differences between respondents of various ages are most evident in relation to the age group “34-50”.

Kruskal-Wallis Test was utilized to analyze age differences in employee satisfaction with benefits and perks. The results are given in Table 2.

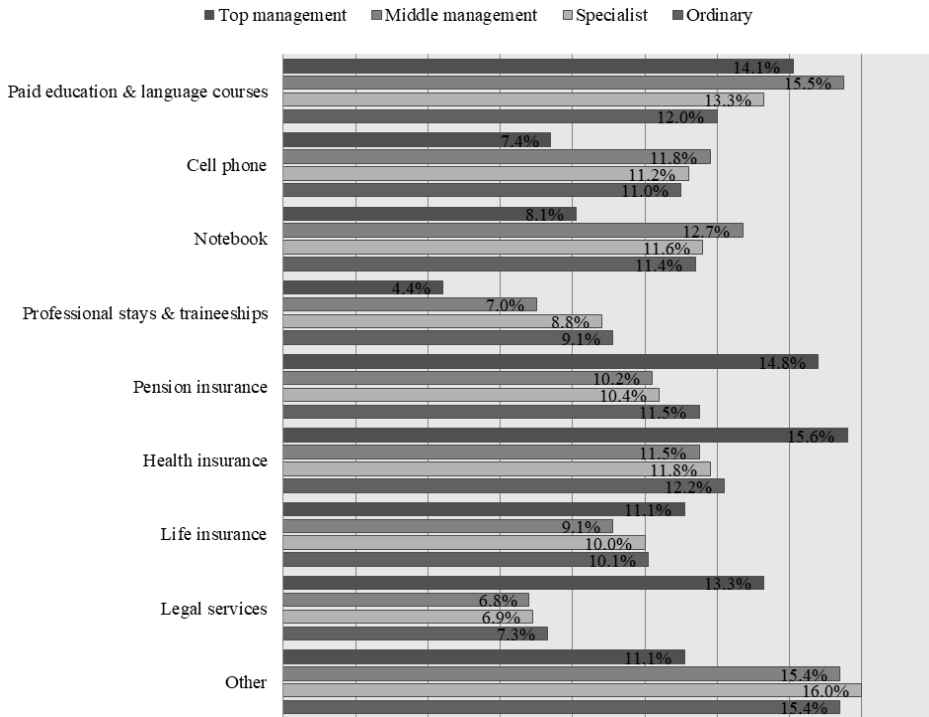
Results of Kruskal-Wallis Test indicate that there is a statistically significant age difference in employee satisfaction with benefit “notebook” ( $p=0.007$ ). Test results do not show any other statistically significant age difference, regarding employee satisfaction with other benefits. Current research results partially confirmed hypothesis H3. While there are differences in employee satisfaction with benefit “notebook” between employees in various age groups, results imply that there are no significant differences regarding other observed benefits.

**Table 2** Age differences in employee satisfaction with benefits/perks

Variable	Mean Rank ≤33	Mean Rank 34-50	Mean Rank ≥51	Chi-Square	Asymp. Sig. (2-tailed)
Paid education & language courses	92.35	79.74	97.09	4.478	0.107
Cell phone	106.12	81.08	94.69	3.966	0.138
Notebook	93.42	74.05	100.13	9.858	<b>0.007</b>
Professional stays & traineeships	91.88	96.83	87.65	1.236	0.539
Pension insurance	71.12	102.78	86.85	5.677	0.059
Health insurance	76.77	102.92	86.09	5.111	0.078
Life insurance	96.23	89.38	91.27	0.194	0.907
Legal services	94.54	88.03	92.22	0.325	0.850
Other	81.58	93.93	90.50	0.672	0.714

Source: Authors' calculation

Respondents with different job positions were also analyzed in order to determine the similarities or differences between benefit preferences of financial sector employees. The results are shown in Figure 4, while job differences in employee satisfaction with benefits and perks were analyzed with non-parametric Kruskal-Wallis Test (Table 3).



**Fig. 4** Most desirable benefits and perks depending on job position

Source: Authors' calculations

**Table 3** Job position differences in employee satisfaction with benefits/perks

Variable	Mean Rank Ordinary	Mean Rank Specialist	Mean Rank Middle mgmt	Mean Rank Top mgmt	Chi-Square	As.Sig. (2-tailed)
Paid education & language courses	74.25	88.44	103.25	102.33	8.489	<b>0.037</b>
Cell phone	87.48	91.26	96.79	49.67	4.947	0.176
Notebook	84.76	89.44	101.04	44.00	8.032	<b>0.045</b>
Professional stays & traineeships	101.10	100.20	78.63	46.83	11.971	<b>0.007</b>
Pension insurance	98.05	88.55	85.80	128.50	4.660	0.198
Health insurance	92.95	91.04	86.34	127.33	3.517	0.319
Life insurance	95.19	94.09	84.03	100.83	1.885	0.597
Legal services	91.51	88.08	88.88	144.83	6.968	0.073
Other	96.75	93.80	88.65	44.67	5.987	0.112

*Source:* Authors' calculation

Results of Kruskal-Wallis Test indicate that there was a slight difference in mean ranks. Employees at ordinary job positions are favoring professional stays & traineeships. Middle management gives priority to the following benefits: paid education & language courses, notebook and cell phone. Regarding top management, their most preferred benefits are: legal services, pension insurance, health insurance and life insurance. According to Kruskal-Wallis Test there are statistically significant job differences in employee satisfaction with following benefits/perks: paid education & language courses ( $p=0.037$ ), notebook ( $p=0.045$ ), and professional stays & traineeships ( $p=0.007$ ). Hypothesis H4 is partially confirmed. There are significant job differences in employee satisfaction with some benefits/perks between respondents at different job positions. Result regarding job position differences could be accepted, given the statistical power 80.64%, since it is considered that 80% power level is enough to detect effects (Cohen, 1992).

Further on, the lack of differences can be explained by less employee interest in this compensation component, since benefits and perks are common in financial sector. For example, in contemporary business environment, which implies a high degree of digitalization, notebook and cell phone are a necessary work tool, not a perk. Also, most banks, insurance companies and financial organizations in Serbia provide private health and pension insurance, and continuous professional development for their employees, so these benefits have become common and expected. The results confirm the findings of Armstrong (2009) who believes that benefits and perks are not a reward for the achieved result, but a reward for belonging to the company. In Serbian financial sector most of the researched benefits and perks are taken for granted, which may explain why they do not have a strong effect on employee satisfaction. The benefits received by financial sector employees have been traditionally present for many years, and as a result they do not have a significant impact on employee satisfaction and work engagement. These results are also confirmed by Muse & Wadsworth (2012), whose study found that only non-traditional benefits have an impact on employee motivation.

To further investigate satisfaction effect of benefits and perks, current research assumed that education is the most desirable benefit, regardless of employee demographics. To address this assumption, each benefit and perk was assigned a certain number of points by respondents. The most desired benefit/perk was awarded with the maximum number of points (9), and the least desired with 1 point. Benefit preference was ranked,

comparing the number of points of each with the total number of points awarded to all benefits/perks. The result of the analysis is shown in Table 4.

**Table 4** Most desired benefits and perks in Serbian financial sector

Variable	Min	Max	M	Sd	Total points	Percent
Paid education & language courses	1	9	6.44	2.617	1,166	13.8%
Cell phone	1	9	5.25	2.447	950	11.2%
Notebook	1	9	5.52	2.215	1,000	11.8%
Professional stays & traineeships	1	9	3.77	2.129	683	8.1%
Pension insurance	1	9	4.99	2.405	904	10.7%
Health insurance	1	9	5.56	2.127	1,006	11.9%
Life insurance	1	9	4.54	2.453	822	9.7%
Legal services	1	9	3.35	2.430	606	7.2%
Other	1	9	7.23	2.416	1,309	15.5%

*Source:* Authors' calculation

The research results showed that “paid education & language courses” is the most significant benefit for employees in the financial sector in the Republic of Serbia, regardless of gender, education, age, and job position (covering 13.8% of the total points). Employees in the age group “34-50”, and employees at ordinary job positions, rank “paid education & language courses” in second place; top managers in third place, while the highest significance of this benefit was noted in all other observed subgroups. As the analysis of research results determined “paid education & language courses” as the most significant benefit, hypothesis H5 is confirmed. Education is the most desirable benefit in the financial sector in the Republic of Serbia, regardless of employee demographics, according to current study. The results of current research are consistent with previous research of Khan (2012), Nemeckova (2017), and Ozkeser (2019), who all confirmed strong positive impact of educational benefits on employee satisfaction.

The current research results also show that “pension insurance” is a highly ranked benefit, of high significance for all employees, regardless of their gender, education, age, and job position. This result was also supported by Niehaus (2008), Kozarevic et al. (2014), and Dugguh & Iliya (2018). On the contrary, Fashagba & Adeyele (2011) in their study confirmed that pension insurance does not satisfy employees or motivate them to improve their work results.

## 5. CONCLUSION

This article contributes to the limited literature on benefits and perks, as well as their significance for employees in Serbia. Moreover, it adds to the knowledge on how structure and importance of benefits and perks differ, depending on employee demographics. This study demonstrates differences and similarities in the most commonly present benefits and perks, by performing a comparative analysis between employees of different gender, education, age, and job position. This investigation provided useful information about employee satisfaction and motivational effects of the existing compensation packages structure, and direction for its future improvements.

Statistical data analysis uncovered five important conclusions. First, the analysis suggested that there are no differences in employee satisfaction with benefits/perks between respondents of different genders. Second, results imply that there are no differences in employee satisfaction with benefits/perks between respondents, depending on their education level. Again, the conclusion regarding educational differences should be accepted as conditional, given the established low statistical power. Third, the current research confirmed statistically significant age difference in employee satisfaction with benefit “notebook”, and no other statistically significant differences, regarding employee satisfaction with other benefits. Forth, the current research proved that there are significant differences in employee satisfaction with benefits/perks between respondents of different job positions. Fifth key finding of current analysis is that education is the most desirable benefit in Serbian financial sector, regardless of employee demographics.

In many national economies, the policy of additional benefits and perks, within the overall compensation package, has become highly relevant and attempts to deliver surplus value to employees. Simultaneously, there should be a straightforward analysis of the employee satisfaction and motivational effect of each of the applied benefits. The contribution of this research is reflected in the fact that it provides decision makers with the clear insight necessary to understand how certain benefits affect employee satisfaction, or indirectly how they affect the improvement of business performances.

Research study has several limitations. Based on the research results and research limitations, several possible directions for future research could be conceptualized, which would significantly complement the knowledge regarding the contribution of benefits to employee satisfaction. One limitation is that research singled out only certain benefits, which the respondents could rank. However, the study indicated that benefits packages in Serbia are probably taken for granted, and that more benefits components should be included in this research. Future studies should expand the list of observed benefits, and thus analyze the significance of those not covered by this study. Repeated research, using the same methodology in some future period, could confirm the reasons for the different importance of benefits, and thus provide key stakeholders a valid basis for improving the compensation system. The representativeness of sample, according to certain characteristics, is the next limitation. Certain subgroups of respondents had an uneven share in the total observed sample. The age subgroup “≤33” participated with only 7.2% in the total sample, while “top management” with only 3.3%, which is insufficient for drawing general conclusions regarding the employee satisfaction and motivational impact of benefits and perks on these subgroups of employees. The recommendation for future studies is to balance all subgroups of respondents, which would increase the statistical power of the research.

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## **UTICAJ DEMOGRAFSKIH RAZLIKA NA ZADOVOLJSTVO ZAPOSLENIH BENEFICIJAMA I PRIVILEGIJAMA: PRIMER FINANSIJSKOG SEKTORA SRBIJE**

*Nakon pada socijalističkog režima, sistemi upravljanja ljudskim resursima u zemljama u tranziciji, kao što je Srbija, transformisani su, uspostavljajući potpuno novi sistem nagrađivanja zaposlenih. U ovom radu istražene su najčešće beneficije i posebne pogodnosti u finansijskom sektoru Srbije, sa fokusom na efektivnost njihove strukture. Istraživanje razlika između uticaja beneficija i posebnih pogodnosti na zadovoljstvo zaposlenih je sprovedeno u odnosu na pol, obrazovanje, starost i radno mesto zaposlenih. Empirijsko istraživanje je sprovedeno anketnim upitnikom. Rezultati ukazuju da ne postoje razlike u zadovoljstvu između ispitanika različitog pola i obrazovanja, dok su potvrđene delimične razlike između ispitanika kada se uzme u obzir njihova starost i radno mesto. Rezultati ukazuju da bi beneficije i posebne pogodnosti u finansijskom sektoru Srbije trebalo bolje strukturirati, i daju smernice za istraživanje povoljnijih ukupnih paketa kompenzacije.*





*Ključne reči: beneficije, posebne pogodnosti, zadovoljstvo zaposlenih, kompenzacioni paketi, upravljanje ljudskim resursima*

## EFFECT OF EMPLOYER-EMPLOYEE RELATIONSHIP ON EMPLOYEE ENGAGEMENT AND TASK PERFORMANCE

UDC 005.32

**Raj Kumar Guntuku, Shravan Boini, Kaustav Mukherjee,  
Ravi Sankar Kummata**

School of Management Studies, Guru Nanak Institutions Technical Campus, Hyderabad, India

ORCID iD:	Raj Kumar Guntuku	 N/A
	Shravan Boini	 N/A
	Kaustav Mukherjee	 N/A
	Ravi Sankar Kummata	 N/A

**Abstract.** *Earlier research proved that organizational productivity depends on the implementation of HR practices. Companies grow high by adopting high-performance-oriented practices. The purpose of this study is to see how the employer-employee relationship affected employee engagement and task performance in food processing plants in Hyderabad. One of the most common HR practices is the employer-employee relationship, which is crucial in determining the employee level of engagement. Task performance refers to an employee's capacity to get things done, and it is backed up by the employer-employee relationship. To measure the influence of the employer-employee relationship on staff engagement and task performance, the researcher performed a study in two food processing plants in Hyderabad, India. To investigate the association between the dependent variables "employee engagement" and "task performance" and the independent variable "employer-employee relationship", hypotheses were constructed. A questionnaire was circulated to respondents as a research instrument, and information was collected from a sample of 100 people. It is inferred that the employer-employee relationship is significantly connected with employee engagement and negatively correlated with task performance. Gender is linked with all three variables and also with the profile factors. Employee engagement is connected to age, whereas task performance is negatively related to the employer-employee relationship. Statistical tools such as descriptive statistics, correlation, and ANOVA tests were used.*

**Key words:** *employer-employee relationship, employee engagement, task performance*

**JEL Classification:** J53, M54, M12

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**Corresponding author:** Raj Kumar Guntuku

School of Management Studies, Guru Nanak Institutions Technical Campus, Khanapur Village, Manchal Mandal, Ibrahimpatnam, Telangana 501506, Hyderabad, India | E-mail: rajkumaresearch@gmail.com

## I. INTRODUCTION

Considerable research was performed in the field of employee engagement; findings were consistent to notice that there is considerable involvement of various factors to influence employee engagement. Findings were even more attractive for HR decision-makers to keep up their workforce productively engaged all the time. According to Saks (2006), there was considerable interest by practitioners and academics in the area of employee engagement. With the emergence of globalization and intensified competition, organizations have started the search for intellectual capital. Firms have started to consider employees as their biggest asset available for their organization. Employees' knowledge, skills, abilities, and talents are given utmost importance in keeping organizations from being outdated. In some organizations, Human resource management practices are bundled together to offer high-performance work practices for better productivity. The relationship between employer and employee plays a major role in determining the fate of organizations. Smooth relationship between superior and subordinate will create a congenial atmosphere in the organization. Care, compassion, warmth, and support exhibited by the boss will certainly enhance the overall employee productivity of the organization. To know to what extent employees are engaged in work is identified by information sharing practices among employees of the organization.

Employee performance is also one of the factors that influences both individual and organizational effectiveness. Hence, under this study the researcher evaluated the relationship between communication among employers and employees and its effect on the task performance of the employees. Employee productivity outcomes are primarily measured in relevance to information sharing practices among the employees. Organizations have to ensure that employers should behave empathetically towards their followers in performing given tasks. Empathetic leadership behavior promotes industrial harmony, peace, fair information sharing practices, and promotes employee engagement and career development opportunities. In this era of industry 4.0 organizations are looking forward to utilize latest technological advancements available in the form of HR analytics, additive manufacturing, 3D printing, IOT, augmented reality. With the incorporation of such technologies, the higher level of employee engagement and task performance can be achieved.

In this era of human intelligence, human capital is bypassing financial capital and it is possible with the usage of latest developments in the technology for the firms to be able to achieve greater heights. But the question that needs to be addressed is to what extent these latest developments could support building stronger relationships and establishing better engagement practices. In this world of complexity, organizations are due, in incorporating emotional intelligence and developing organizational citizenship behavior among employees, to change behavior of employees from destructive to constructive. This study certainly throws light on employer-employee relationship and assesses its impact on employee engagement and task performance working in food processing units. The main aim of the study is to assess the effect of employer-employee relationship on employee engagement and task performance.

## 2. OBJECTIVES OF THE STUDY

To evaluate the association between employer-employee relationship and employee engagement,

To know the association between employer-employee relationship and task performance,

To identify the relationship between employee engagement and task performance,

To evaluate the association between profile factors and variables considered under study.

## 3. REVIEW OF LITERATURE

### 3.1. Definition of Employee Engagement

(Baumruk, 2004; Richman, 2006; & Shaw, K. 2005) “Employee engagement is a submission of ones’ intellectual capital and emotional capabilities for the wellbeing of the organization”. According to Frank et.al., (2004) employees in their organizations are bound by certain discretionary efforts. Truss et.al., (2006) simply put, engagement has been defined as 'passion for work,' an emotional state that encompasses the various dimensions of engagement. It measures the value that an employee could deliver at their workplace through the usage of their skills and updated talents. He is the first person to link engagement with behavior skills. Employee engagement will certainly create a sense of belonging among the employees to establish a better organizational culture.

Rich et al. (2017) define engagement as the mix of cognitive abilities, physical, and emotions used to achieve desired results at the workplace. According to Rothbard (2001) engagement is attained by identifying two dominant components: (1) attention, and (2) absorption; the later refers to getting captivated in one’s role and the former refers to being attended to absorb and digest his role.

Engagement is considered to be a dominant component of the workplace of effective organizations (Fairfield et al., 2009). Concerning familiarity owning by employee engagement in the sphere of, organizations, recent surveys pointed out that having no engagement in the workplace is a considerable issue now. According to Maslach & Leiter (1997), “engagement is categorized by (1) energy, (2) involvement, and (3) efficacy, which are the direct opposites of the three burnout dimensions”.

#### 3.1.1. Cause and Effect of Employee Engagement

Earnings per share (EPS) are linked with employee engagement, as one can see a hike in EPS with the result in improvement in employee engagement (Ott, 2007). “Employee engagement is associated with organizational performance indicators like overall profitability, customer satisfaction, brand loyalty, employee retention, safety, productivity, sales” (Coffman, 2000). Strong motivation and psychological boost up are possible with the practice of employee engagement (Ashforth & Humphrey, 1995).

It was inferred by Saks (2006) that researchers tend to agree that the concerns of employee engagement are positive and it certainly motivates employees to achieve organizational objectives. To what extent the employees are engaged, depends on the facilities provided by the organization. As it was confirmed by Harter et.al., (2002), engagement is strongly associated with business objectives. They concluded that “...employee satisfaction and engagement are related to meaningful business outcomes at a magnitude that is important to many organizations”.

### **3.2. Employer-Employee Relation**

Relationship among employers and employees should be managed effectively to enhance the overall effectiveness of the organization. Good relations promote better scope to perform and bad relations reflect adverse conditions and thus result in poor performance. The employer-employee relationship is one of the dominant management practices and is achieved only through mutual understanding and sharing among both parties. It is one of the governing factors having the potential to decide the fate of organization (Wilkinson et al, 2014; Sparrow & Makram, 2015; Keeble-Ramsay & Armitage, 2014; Persson & Wasieleski, 2015). It was proven by many of the researchers that the majority of the goals are achieved only due to effective relationships between employer-employee, but it is a double-edged sword, which can exhibit both positive and negative sides. Employer-employee relationship will promote enough happiness among employees and thus lead to success (Valizade, et.al., 2016). In contrast, weak relationships drive employees toward poor performance.

Though employers play a major role in making decisions, employees are more influenced during the times of critical matters to be discussed and their presence is given utmost importance: this sort of mechanism is called employer-employee relationship management (Marchington & Wilkinson 2008). Industrial harmony is the gateway to organizational performance. It is attained through the implementation of better information-sharing practices among leaders and followers. Savolainen, (2000) noticed that the employer-employee relationship is identified as a key performance area in achieving organizational success. Furthermore, Sadri & Lees (2001) expressed that there is a great amount of need for organizations to encourage and embrace a positive organizational climate and thus lead to establishing a positive relationship between employers and employees.

Employer-employee relation is considered to be a central nervous system of any organization as it runs on activities like clash and collaboration. “The achievement of organizational objectives depends upon employment relations” (Dawson, 1995). Evidence from the study of Limerick (1992) suggests “that individual empowering should be consistent in the event of strategic change”.

### **3.3. Task performance**

It is all about individual behaviour towards their respective roles in relevance to the goals of the organization. Task performance is related to the job in which an employee exhibits behaviours about satisfying his boss. With the increase in competition and the need for versatile skill requirements, study on task performance has received considerable attention. According to Boroman & Motowidlo (1993), classifications were made for job performance, one is based on role, and the second one is on behaviour suitable to perform the job and another one is an extra-role performance which is not directly related to the job but it has its effect on organizational performance. They categorized these two types as task performance and contextual performance. The job description consists of roles and responsibilities to be played by an employee and his work performance is measured against their roles.

### 3.4. Drivers of task performance

There are many drivers noticed by eminent researchers, according to Waldman and Spangler (1989), leaders' behaviour, experience, job security, ability, pay increase, performance feedback, and group process are the major causing variables for task performance. In the words of Jalil et. al., (2015), individual characteristics play a major role in measuring work performance and employees need to be motivated to achieve desired results in their roles. Employees need a sound organizational culture for better performance. Mutual understanding, sharing a bit of mind, providing career development opportunities, emotional intelligence, and empathetically sound behaviour are some of the cultural inputs useful to embrace task performance (Mensah & Tawiah 2016). These organizations should create an atmosphere of mutual sharing and there will be continuous improvement in organizational outcomes (Shahzad, 2014) Leadership style plays a vital role in acquiring desired results of employees. The leader's behaviour towards followers and information sharing practices applied by leaders to intensify their growth opportunities will have an effect on employee job performance, (Mulki et al., 2014). Employees may derive pleasure from completing given tasks on time. It gives them immense pleasure in satisfying themselves with their roles and responsibilities defined by employers. Completing a job in the given time results in employee Job satisfaction, which is another factor to be considered to deliver better job performance. There are many ways that an individual could be satisfied with his job, utilizing financial and non-financial measures. (Kappagoda et. al., 2012).

### 3.5. Food processing units in Telangana state of India

The food processing industry offers massive opportunities with attractive and stimulating growth prospects. In India, the food and grocery retail market constitutes 65% of the total market. The government of India is coming up with huge potential offers for potential entrepreneurs. Currently, the Food processing industry in Telangana processes ~25% of Agri & allied output by value and adds 12.5% in value; Telangana state is known for the production of lemon, grapes, turmeric, soybean, and sweet orange. The government of Telangana state is promoting venture capital funds to promote entrepreneurial skills in the area of food processing units. All food processing units are eligible for a grant of Rs. 5 Lakhs for participating in the Telangana Agri Profile. The government has sanctioned 4 mega food hubs. Hence, there is a great need to encourage this sector. There are around 10 major players belonging to food and confectionary units in the Hyderabad region of Telangana State, where the survey is conducted. Ravi food products limited and Anand food products limited are the two units considered for the study.

## 4. RESEARCH METHODOLOGY

### 4.1. Research Hypotheses

Although there has been considerable research done in the area of employee engagement, still it seems that studies on factors influencing engagement only acquired scant attention. According to a study by Arimie (2020), "employee engagement is a by-product of employer-employee relations and the quality of the relationship, which plays a vital role to evaluate the level of engagement and satisfaction of employees".

The strong relationship between employers and employees can encourage employee engagement. Employee engagement and job satisfaction are driven by employer-employee relations. Shaheen et al., (2017) revealed that employer-employee relation targets to what extent employees are engaged in their jobs. Cleland et.al., (2008) reported that “the white paper of the Ixia Consultancy revealed that employees believed that they feel more satisfied and engaged when the relationship with their managers is based on respect and dignity”. Findings from the report by Kenexa (2008), inferred that the attitude and behaviour of leaders towards employees will certainly decide the level of engagement. Managers who respect, appreciate, inspire, motivate and develop stimuli in them and create a wonderful organizational climate for their employees are more likely to get engagement.

The employee-employee relationship is positively related to employee performance to produce better results. Organizations are successful when there is peace and harmonious relationship among superiors and subordinates, such an atmosphere reduces friction among them. Therefore, it can be predicted that the employer-employee relationship may have an association with employee engagement and task performance. Based on the argument, the following hypotheses are formulated.

- H1: Employer-employee relationship is positively correlated with employee engagement.
- H2: Employer-employee relationship is positively correlated with task performance.
- H3: Gender is associated with the employee-employer relationship
- H4: Gender is associated with the employee engagement
- H5: Gender is associated with task performance
- H6: Age is associated with the employer-employer relationship
- H7: Age is associated with employee engagement
- H8: Age is associated with task performance

#### **4.2. Research study**

In this study, the researcher examined the influence of the employer-employee relationship on employee engagement and task performance of the employees working in DUKES – Ravi foods Pvt limited and Anand foods Pvt limited located in Hyderabad, India. The very purpose of this study is to test the relationships among the dependent and independent variables considered under this study and to ensure that the findings are useful to the sector considered under this study. Correlation is one of the statistical techniques employed to explore the relationship between the employer-employee relationship (independent variable) and employee engagement and task performance (dependent variables). This study is conducted in a food processing unit belonging to the manufacturing sector. For this purpose, data is collected from superiors and subordinates belonging to various departments, working in the food processing unit in Hyderabad city, India. 220 employees belong to managerial and non-managerial positions working for both Ravi foods Pvt limited and Anand foods Pvt limited. We have distributed the questionnaire to 117 employees through convenient sampling. Some of the respondents have not filled out the research instrument in the required manner, after considering the viability of the filled questionnaires. The sample size is taken as 100.

The employer-employee relationship is an HR practice considered as an independent variable in this research study. Employee engagement and task performance are dependent variables. Standard constructs are used in this study to measure these variables. The questionnaire was categorized into four parts, demographic profile factors, employer-employee relationship, employee engagement, and task performance. In this study, a



questionnaire with four constructs is framed using a Likert scale of measurement ranging from 5 to 1.

**Table 1** Reliability

Variable	Cronbach's Alpha	No of items
Employee Engagement	.840	5
Task Performance	.860	8
Employer-Employee relation	.824	8

*Source:* authors' calculation

To measure Task Performance, a construct developed by (Goodman, S. A., & Svyantek, D. J. 1999) was used in this study. There are 8 items in this construct. The reliability test gave us a Cronbach's alpha value of 0.86. The employee engagement measure scale consists of 5 items with Cronbach's alpha value of 0.84. Employer-employee relationship scale consists of 8 items with a Cronbach's alpha value of 0.824.

## 5. RESULTS

The researcher examined the level of the employer-employee relationship, employee engagement, and task performance of the superiors and subordinates belonging to various departments.

**Table 2** The Result of Descriptive statistics analysis

Task Performance		Engagement		Employer-Employee relation	
Mean	26.93	Mean	16.26	Mean	22.22
Standard Error	0.250355	Standard Error	0.230336	Standard Error	0.313204
Median	27	Median	16	Median	22
Mode	28	Mode	17	Mode	22
Standard Deviation	2.503553	Standard Deviation	2.303357	Standard Deviation	3.132044
Sample Variance	6.267778	Sample Variance	5.305455	Sample Variance	9.809697
Kurtosis	6.19061	Kurtosis	1.234942	Kurtosis	9.607728
Skewness	1.342175	Skewness	0.560513	Skewness	1.85112
Range	18	Range	13	Range	25
Minimum	22	Minimum	12	Minimum	15
*Maximum	40	*Maximum	25	*Maximum	40
Sum	2693	Sum	1626	Sum	2222
Count	100	Count	100	Count	100
Confidence Level(95.0%)	0.496759	Confidence Level(95.0%)	0.457036	Confidence Level(95.0%)	0.621465

*Source:* authors' calculation

There are 8 items in construct task performance. Hence, the total score value (maximum) is 40. There are 5 items in construct employee engagement. Hence total score value (maximum) is 25. There are 8 items in construct employer-employee relation. Hence, the total score value (maximum) is 40.

The researcher examined the above table to draw an inference that employer-employee relationship practices are moderate in this firm as the mean value is (22.12) against to maximum value of 40. The level of employee engagement is good in this firm having a mean value of 16.22 against the maximum of 25. Task performance is moderate in this firm as the mean value is 26.85 against the maximum of (40).

**Table 3** Result of Correlation

	1	2	3
1. Employer-Employee relationship	1		
2. Task Performance	-0.0328**	1	
3. Engagement	0.189413**	0.267687**	1

\*\*p<0.05 \*p<0.01

Source: authors' calculation

In this study, the following parameters were used to determine the practical effect size of the inter correlation coefficient values as suggested by Cohen (1992) and supported by Osteen and Bright (2012): coefficient values around .10 or below were considered small; those around .30 were considered moderate; and those around .50 were considered large in terms of practical significance

The coefficient of correlation is an indication of the strength of the linear relationship between two variables. From the above table, it is inferred that the variables employer-employee relationship and employee engagement are positively correlated as the coefficient of correlation value ( $r=0.18$ ) which is greater than zero at 5% significance level. Hence, it signifies that the relationship between the Employer-Employee relationship and Employee Engagement is small and positive. It is concluded that employees at the food processing units are engaged in work due to rapport and smooth relationship between the employers and employees.

The variables employer-employee relationship and task performance are negatively correlated ( $r=-0.0328$ ). The correlation between the variables engagement and task performance is moderate ( $r=0.267$ ). Hence, it is concluded that the employees in food processing units are performing tasks due to the fact that the employees are engaged in the work.

**Table 4** The Result of Regression Analysis

Adj. $R^2 = 0.034$		F=2.7495		Sig F = 0.06	
	(B)Coefficients	Standard Error	t Stat	P-value	
Employee Engagement	0.293841705	0.127549909	2.303739047	0.023371686	
Task Performance	0.141155713	0.127066735	-1.110878566	0.269366678	

Source: authors' calculation

From table 4 it is inferred that employee engagement is the most influencing factor and is caused by good employer-employee relationship practices. ( $B=0.29$ ,  $p < 0.05$ ). Task

performance is not showing a significant impact on the employer-employee relationship as ( $B=0.141$ ,  $P>0.05$ ). Hence, it is noticed that employee engagement is caused by the employer-employee relationship. The level of employee engagement is highly influenced by the ongoing relationship between leaders and followers.

**Table 5** Result of Anova: Gender and Employer-Employee relationship

Groups	Count	Sum	Average	Variance		
	10	25	2.5	2.944444		
1	12	74	6.166667	25.42424		
Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	73.33333	1	73.33333	4.790419	0.040653	4.351244
Within Groups	306.1667	20	15.30833			
Total	379.50003	21				

*Source: authors' calculation*

From the above Table 5, it is noticed that  $p=0.04$ ;  $p < 0.05$ . Hence, there exists a relationship between gender and employer and employee relationship. Here, the employer and employee relationship is a variable that is influenced by gender. Hence, gender determines the level of relationship existing between employers and employees.

**Table 6** The Result of Anova: Gender and Task Performance

Groups	Count	Sum	Average	Variance		
	9	25	2.777778	3.444444		
1	10	74	7.4	23.15556		
Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	101.2023	1	101.2023	7.291372	0.015167	4.451322
Within Groups	235.9556	17	13.87974			
Total	337.1579	18				

*Source: authors' calculation*

From the above Table 6, it is noticed that  $p=0.015$ ;  $p < 0.05$ . Hence, there exists a significant relationship between gender and task performance. It is interpreted that task performance is achieved by the involvement of gender. The amount of work being performed by an individual in an organization is certainly influenced by male or female workers.

**Table 7** The Result of Anova: Gender and Employee Engagement

Groups	Count	Sum	Average	Variance		
	7	25	3.571429	3.285714		
5	10	70	7	19.55556		
Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	48.40336	1	48.40336	3.709747	0.073263	4.543077
Within Groups	195.7143	15	13.04762			
Total	244.1176	16				

*Source: authors' calculation*

From the above table, it is noticed that  $p = 0.07$ . As  $p$ -value is higher than 0.05, there exists no relationship between gender and employee engagement. We can interpret that the level of employee engagement is not influenced by gender.

**Table 8** The Result of Anova: Age and Employer-Employee relationship

Groups	Count	Sum	Average	Variance		
1	11	62	5.636364	25.65455		
	11	28	2.545455	1.472727		
	2	5	2.5	0.5		
	3	4	1.333333	0.333333		
Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	75.56061	3	25.18687	2.126337	0.124545	3.027998
Within Groups	272.4394	23	11.84519			
Total	348	26				

*Source:* authors' calculation

From the above table, it is noticed that  $p=0.12$ ;  $p > 0.05$ . Hence, there exists no relationship between age and the employer-employee relationship. Age is not an influencing factor in building relationships between employers and employees.

**Table 9** The Result of Anova Age And Task Performance

Groups	Count	Sum	Average	Variance		
1	9	63	7	12		
	9	28	3.111111	2.861111		
	4	5	1.25	0.25		
	3	3	1	0		
Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	145.3211	3	48.44037	8.502651	0.000687	3.072467
Within Groups	119.6389	21	5.			
Total	264.96	24				

*Source:* authors' calculation

From the above table, it is noticed that  $p=0.006$ , where  $p < 0.05$ . Hence, there exists relationship between age and task performance. The effectiveness of the task to be performed by the employees is influenced by the age of the employees working in the organization.

**Table 10** The Result of Anova: Age and Employee Engagement

Groups	Count	Sum	Average	Variance		
4	7	59	8.428571	15.61905		
	10	28	2.8	3.288889		
1	4	4	1	0		
	2	4	2	0		
Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	195.2944	3	65.09814	10.03018	0.000353	3.12735
Within Groups	123.3143	19	6.490226			
Total	318.6087	22				

*Source:* authors' calculation

From the above table, it is noticed that  $p=0003$ , where,  $p < 0.05$ . Hence, there exists a relationship between age and employee engagement. To what extent employees are engaged in the work assigned is determined by the age of the employees.

## 6. DISCUSSION

From the above results, it is inferred that there exists a relationship between the employer-employee relationship and employee engagement. Hence, H1 is accepted. From the findings, it is concluded that the relationship between employers and employees plays a predominant role in ascertaining the level of employee engagement. Similar findings are noticed from the work of Joel Arimie, Chukuyem (2020), "employee engagement is a by-product of employer-employee relations and the quality of the relationship and is one of the most critical factors that drive engagement and satisfaction of employees". A smooth relationship between leader and follower will establish a congenial atmosphere in an organization. It strengthens the companionship among the employers and employees and cements relationship to achieve desired results

Task performance does not have association with the employer-employee relationship. Hence, H2 is rejected. Hence, the employer-employee relationship is not associated with task performance.

Gender is associated with the employer-employee relationship. Hence, H3 is accepted. Similar findings were noticed in the study of ILOSTAT, (2020) that there is parity in gender in terms of works force. According to Woetzel et al. (2018) "there is a huge amount of gender discrimination in achieving organizational leadership".

Gender is not associated with employee engagement. Hence, H4 is rejected. A similar finding was identified from the study of Banihani et al. (2013) that it is easier for men to get engaged in work than women.

Gender is having a relationship with task performance. Hence, H5 is accepted. According to the study by Green et al. (2009), "there is a significant gender-based difference in performance on various dimensions".

Age is not associated with the employer-employee relationship. Hence, H6 is rejected.

Age is associated with employee engagement. Hence, H7 is accepted. Similar findings are withdrawn from the study of Douglas & Robers (2020) that senior employees of age above 50 are more engaged than employees of age less than 50.

Age is associated with task performance. Hence, H8 is accepted. It is inferred that age is an influencing factor of task performance. According to the survey conducted by Converso (2018), age is negatively associated with task performance.

## 7. IMPLICATIONS OF THE STUDY

From the above discussions, it is observed that employees working in food processing units are productively engaged due to effective relationship and companionship among employers and employees. Whereas Task fulfillment and performance delivered by employees is in no way connected to the employer and employee relationship. Hence, it is a need of the hour for decision-makers to train their managerial staff in the lines of behavioral attributes like emotional intelligence, empathetic leadership, and counseling employees through sharing a bit of mind, and changing employees' behavior from destructive to

constructive. Such valuable inputs necessarily create strong bondage between leaders and followers. It is advised for the food industry to make sure that the firms have to focus more on imparting training programs to employees on the above-mentioned attributes. Profile factors like age and gender considered in this study are certainly showing an influence on achieving employee engagement and task performance.

## 8. DIRECTION FOR FUTURE RESEARCH

Future scholars will go on many different paths as a result of this work. Employee engagement and task performance were the main variables of interest in this study in connection with the employer-employee relationship in food processing units. Exploring how the employer-employee relationship is influenced by other variables practiced in the food processing company, on the other hand, could be productive for decision-makers in making decisions pertaining to appraising the performance of the employees and in designing a road map to grab career development opportunities. It would be worth emulating to conduct a study about the impact of the employee-employer relationship on lowered turnover intentions, job satisfaction, organizational citizenship behavior, dedication, job involvement, work-life balance, workplace bullying, and stress, for example. The goal of the study was to show a direct link between the employer-employee relationship and each dependent variable. Further research would be more beneficial if it could include independent variables such as employee empowerment, pressure to perform, job clarity, and so on, as well as dependent variables.

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## EFEKTI ODNOSA POSLODAVAC-ZAPOSLANI NA ANGAŽMAN ZAPOSLENIH I RADNI UČINAK

*Ranija istraživanja su pokazala da organizaciona produktivnost zavisi od primene HR praksi. Kompanije rastu tako što prihvataju prakse koje su orijentisane ka visokim performansama. Svrha ovog rada je se vidi kako odnos poslodavac-zaposleni utiče na nagažman zaposlenih i radni učinak u fabrikama za preradu hrane u Hajderabadu. Jedna od najčešćih HR praksi je odnos poslodavac-zaposleni, što je ključno u određivanju niovoa angažmana zaposlenih. Radni učinak se odnosi na sposobnost zaposlenog da obavi zadatke, i na njega utiče odnos poslodavac-zaposleni. Da bi izmerio uticaj odnosa između poslodavaca i zaposlenih na angažman zaposlenih i njihov radni učinak, autor je obavio istraživanje u dve fabrike za preradu hrane u Hajderbadu, Indija. Da bi se istražila veza između zavisnih varijabli "angažman zaposlenih" i "radni učinak" i nezavisne varijabile "odnos poslodavac-zaposleni", stvorene su hipoteze. Kao instrument istraživanja, učesnicima je podeljen upitnik, a informacije su sakupljene na uzorku od 100 ljudi. Zaključeno je da je odnos poslodavac-zaposleni u velikoj meri povezan sa angažmanom zaposlenih i ima negativnu korelaciju sa radnim učinkom. Pol ispitanika je povezan sa sve tri varijabile kao i sa faktorom profila. Angažman zaposlenih je povezan sa starošću ispitanika, dok je radni učinak negativno povezan sa odnosom poslodavac-zaposleni. Korišćeni su statistički instrumenti poput deskriptivne statistike, korelacije i ANOVA testova.*

*Ključne reči: odnos poslodavac-zaposleni, angažman zaposlenih, radni učinak*



## THE MOST INFLUENTIAL ORGANIZATIONAL CHANGE MANAGEMENT MODELS FROM 1950 TO 2020

UDC 005.591 "1950/2020"


Nikolina Vrcelj<sup>1</sup>, Darjan Karabašević<sup>2</sup>


<sup>1</sup>Association of Economists and Managers of the Balkans, Belgrade, Serbia

<sup>2</sup>Faculty of Applied Management, Economics and Finance – MEF, Belgrade, Serbia

ORCID iD: Nikolina Vrcelj

Darjan Karabašević

 <https://orcid.org/0000-0002-6409-4005>

 <https://orcid.org/0000-0001-5308-2503>

**Abstract.** *In the modern world economy, the survival of the organization increasingly depends on the ability of management to understand and manage change. The organization is constantly on the move and nothing should be considered static. Many diverse factors affect change, and few are under the control of the organization. The task of management is to understand the nature of changes, accept them, and direct them. However, there is no generally accepted model in the field of organizational change management. Many researchers and practitioners have failed to reach a consensus on which model is more effective for organizational change to be successful. This paper aims to identify the most influential organizational change models from 1950 to 2020. In order to identify them an analysis of 16 leading journals was carried out. The first 10 journals are listed on the Financial Times 50 list as the most influential in business and management and were selected for the analysis based on their relevance and scope (organizational change management). Other 6 journals were selected for the analysis as they are published by the world's prestigious academic institutions and have a high impact on the field of organizational change. Analysis of the journals in the period from 1950 to 2020 was performed, and 19 models of organizational change management that are relevant for this research were extracted. Afterward, an examination of domestic literature was conducted. There, three additional referent models were identified using the keywords: "model" and "change" within the research of the COBIB.SR database. The identified models of organizational change are then further analyzed and divided into three groups - process models that focus on the actual steps or phases of the change - 14 models, structural models that discuss the factors of change - 5 models; and integrated ones that use a combination of the previous two approaches - 3 models.*

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**Corresponding author:** Nikolina Vrcelj

Association of Economists and Managers of the Balkans, Ustanička 179/2, 11000 Belgrade, Republic of Serbia

| E-mail: [vrclj.nikolina@gmail.com](mailto:vrclj.nikolina@gmail.com)

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**JEL Classification:** M10, O32

## 1. INTRODUCTION

In an increasingly turbulent and faster environment, change has become an imperative, a necessity and the key to success when it comes to increasing business efficiency and survival in the market. Those who do not change lose and disappear. Therefore, if an organization wants to beat the competition, then it must provide and accelerate the process of change, use it as a weapon and be able to manage the creativity of existing staff (Eftimov & Kamenjarska, 2021; Vrclj, Vrclj, & Jagodić Rusić, 2017; Vrclj, Bučalina Matić, & Milanović, 2017).

In order to fully explain the organizational change, three key issues need to be analyzed in more detail: why organizational change happens, what changes during organizational change, and how organizational change occurs. The answer to the first question requires finding out the causes of organizational change, the second - it is necessary to discover the content of organizational change, and the third question - it is necessary to explain the process of organizational change. Namely, causes, content, and process are the three basic components of the model of organizational change. If the causes, content, and course of the process of organizational change are familiar, then organizational change can be fully understood and successfully managed (Čuturić, 2005, p. 102; Janičijević & Babić, 1998, p. 37). Definition of a model in dictionaries mainly includes the following keywords: imitation or what we compare something to. Additional definitions often include terms such as a copy or representation of how something was built or how something looks. Under the model in this research, we mean the presentation of the organization of the company and its structural elements.

According to Burke (1994, p. 55; 2011) theoretical organizational model can be useful because of several reasons. First, it helps to categorize the information we have - when we look at the company and collect data on activities and behavior in the organization, we have millions of pieces of information at our disposal; for this reason, models are used to select and categorize information and reduce them to a framework that we can manage (for instance: 12 components of a company, instead of thousands). Second, the organizational model serves to a better understanding of organizational processes and elements - may reveal that serious organizational problems exist only in, e.g. four categories, and let us know in which parts of the organization we should operate. Third, the model helps to interpret the data we have about the organization itself (if, among others, there are two organizational components in the model - structure, and strategy and if it is known with certainty that they are correlated, we will be aware that changes in structure will affect strategy and vice versa). Fourth, the model simplifies the language and communication in the company - instead of saying: predisposition to behave in a certain way, we will say (organizational) culture. Fifth, the model directs actions during organizational changes - serves as a map for the implementation of change strategy (highlights priorities or consequences - what comes next), etc.

Although the organizational model can be very useful for explaining how a company operates or its components, at least two limitations should be kept in mind. Firstly, the model is good to the extent that all factors and relationships between them are well identified. Secondly, if companies are observed only through theoretical organizational

models, there is a high chance that some important aspects of organizational functioning will be overlooked (Burke, 2011).

There are many organizational models in modern theory, and some of the most famous authors of these models are Mintzberg, McKinsey, Morgan, Kübler-Ross, Hussein, Backhard & Harris, Bullock & Batten, Kotter, Lewin, Wilson, Lawrence & Lorsch, Khandwall, Inkson, Poras & Robertson, Friedlander & Brown, Denning, Greiner, Burke & Litwin, and others. Many of them are based on Leavitt's model if they are structurally typological, or on Lewin's model if they are procedural in nature.

## 2. RESEARCH BACKGROUND AND METHODOLOGY

This research began with a review of foreign models of organizational change that were published/cited between 1950 and 2020 in at least two of the 16 selected journals. Journals were selected in two ways: first, those listed on the Financial Times 50 (FT50) list from 2016<sup>2</sup> were analyzed as the most influential in business and management. The list includes 50 journals. Based on the relevance and scope of the journal (organizational change management), 40 journals were eliminated, leaving only 10. They are given in the following table (Table 1).

**Table 1** Selected journals from the FT50 (2016) list of the most influential in business and management

Position of the journal on the FT50 list, its name, and the publisher
1. 1. Academy of Management Journal (Academy of Management)
2. 2. Academy of Management Review (Academy of Management)
3. 9. Harvard Business Review (Harvard Business School Publishing)
4. 24. Journal of Management (SAGE)
5. 26. Journal of Management Studies (Wiley)
6. 32. Management Science (Informs)
7. 37. Organization Science (Informs)
8. 38. Organization Studies (SAGE)
9. 47. Sloan Management Review (MIT)
10. 49. Strategic Management Journal (Wiley)

*Source:* Authors' processing according to the FT50 journal list (2016)

On the other hand, influential journals in the field of organizational change, published by the world's leading academic institutions with high impact factors in the field of organizational change are given in the following table (Table 2). In the second phase of the selection of journals, they are included in the analysis. The selection of journals to be analyzed reached number 16.

In the next phase of the research, in order for the model of organizational change to be included in the analysis, it had to be published/cited in at least two journals out of 16 selected. In this way, a total of 19 different models of organizational change were identified. The data are shown in the following table (Table 3). As can be seen, Kotter's 1995 model is the most cited, and the 1980's 7S model is cited the least.

<sup>2</sup> The list is being published every four years. Due to the COVID-19 pandemic, the list was not released in 2020.

**Table 2** Influential journals in the field of organizational change

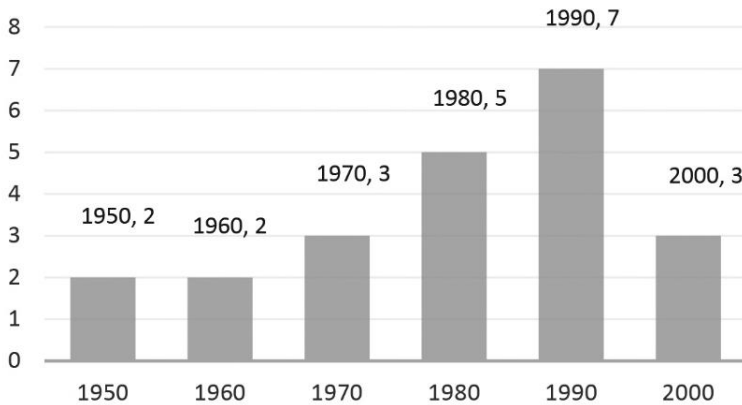
Journal name and the publisher
1. Academy of Management Perspectives (AMP)
2. California Management Review (UC Berkeley)
3. Journal of Change Management (Taylor and Francis Group)
4. Journal of Organizational Change Management (Emerald)
5. Journal of Organization Behavior (John Wiley and Sons)
6. Leadership & Organization Development Journal (Emerald)

*Source:* Authors' research

In the last phase of the research on the identification of organizational change models, an analysis of domestic literature was performed by searching the COBIB.SR database<sup>3</sup>. There, three additional reference models were identified using the keywords: "model" and "change" – Jančićević-Babić (1998), Jančićević (2004) and Cvijanović (2004).

The process of identifying the most influential models of organizational change is best explained in the following figure (Fig 1).

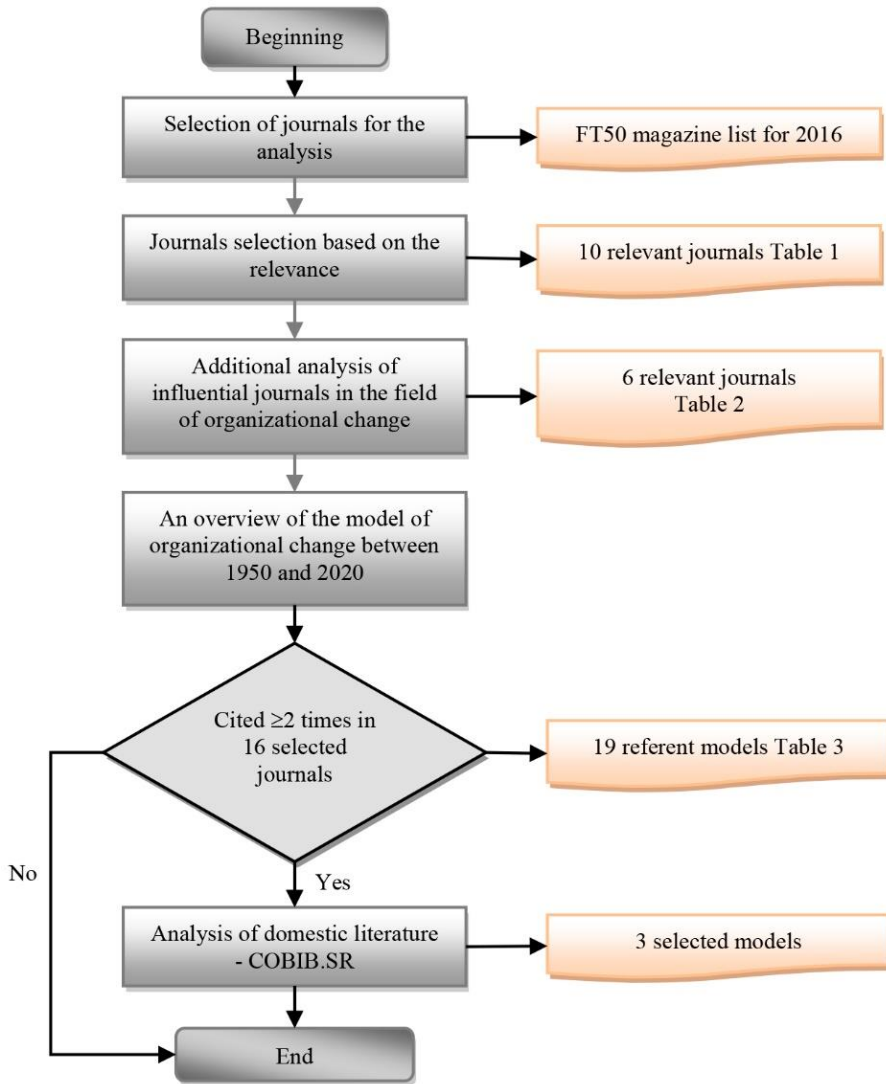
The time distribution of the origin of 22 selected models (19 foreign models and three domestic models), which covers the period from 1950 to 2020, is shown in the following graph (Graph 1).



**Fig 2** Time distribution of the occurrence of selected models of organizational change included in the analysis

*Source:* Authors' research

<sup>3</sup> The mutual electronic catalog COBIB.SR was formed from the local electronic catalogs of the National Library of Serbia, the Library of the Matica Srpska, the University Library "Svetozar Markovic" in Belgrade and the Yugoslav Bibliographic Information Institute.



**Fig. 1** Methodology of selecting the reference models of organizational change for analysis  
 Source: Authors' processing

**Table 3** Comparative analysis of selected journals and appearance of organizational change models

Name of the journal and impact factor for 2021	Levin (1951)	Lippitt et al. (1958)	Leavitt (1965)	Denning (1968)	Bullcock & Batten (1973)	Friedlander & Brown (1974)	Six box model (1976)	Bridges (1980)	Huse (1980)	7S (1980)	Nadler & Tushman (1980)	Beckhard & Harris (1987)	Judson (1991)	Burke & Linstead (1992)	Kanter et al. (1992)	Kotter (1995)	Galpin (1996)	Armenakis et al. (1999)	Luecke (2003)
1. Academy of Management Journal (IF 10,194)																			
2. Academy of Management Perspectives (IF 7,846)																			
3. Academy of Management Review (IF 12,638)	✓	✓																	
4. California Management Review (IF 8,836)			✓	✓					✓										
5. Harvard Business Review (IF 1,66)		✓	✓	✓					✓										✓
6. Journal of Management Studies (IF 7,388)	✓	✓	✓	✓		✓													
7. Management Science (IF 4,883)			✓					✓											
8. Organization Science (IF 5,000)																			
9. Organization Studies (IF 6,306)		✓	✓				✓												
10. Sloan Management Review (IF 1,803)																			
11. Strategic Management Journal (IF 8,641)	✓	✓		✓	✓	✓	✓	✓	✓		✓								
12. Journal of Management (IF 11,790)													✓					✓	
13. Journal of Change Management (IF -)	✓																		
14. Journal of Organizational Change Management (IF 2,293)	✓		✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
15. Journal of Organization Behavior (IF 8,174)	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
16. Leadership & Organization Development Journal (IF 3,242)	✓	✓		✓			✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Overall citation in the journals</b>	<b>7</b>	<b>6</b>	<b>7</b>	<b>7</b>	<b>3</b>	<b>3</b>	<b>5</b>	<b>6</b>	<b>3</b>	<b>2</b>	<b>8</b>	<b>3</b>	<b>6</b>	<b>5</b>	<b>7</b>	<b>14</b>	<b>6</b>	<b>4</b>	<b>3</b>

Source: Authors' research

### 3. CLASSIFICATION OF ORGANIZATIONAL CHANGE MANAGEMENT MODELS

The identified models of organizational change that will be further analyzed are divided into three groups. The first group consists of process models that focus on the actual steps or phases (determinant "how") of the process of organizational change - 14 models. On the other hand, structural models discuss the factors of change in the organization (real factors, related to the determinant "what") - 5 models; integrated ones help analyze and understand change using a combination of the previous two approaches - 3 models.

#### 3.1. Process models of organizational change

The process of change has always attracted the attention of researchers who sought to answer the question: what is the course of organizational change, what the stages in the process are, and what should be done to ensure that the process runs smoothly. There are numerous models of the flow of organizational change processes that differ, both in scope (the content of change) and in the nature of the changes themselves. Thus, some flow patterns include only partial changes, while others involve radical and comprehensive changes. In doing so, a distinction is made between descriptive and prescriptive models of organizational change. Descriptive models are oriented towards explaining the course of organizational change, as it really is, while prescriptive models try to prescribe what an effective process of organizational change should look like (Janićijević & Babić, 1998, p. 38).

Process models of change are viewed in an applicative, practically oriented way, i.e. they focus on the question of "how" - the actual steps to be taken during the changes, their sequence, and the measures that follow them. The following representations of the models (Table 4) follow the logic from simple to more complex and were selected using the previously explained methodology.

Many theorists have explained their understanding of organizational change through the concept of transition. According to Burke (2011), these models illustrate the complexity of major organizational changes. Also, transition models make it easier to realize the importance of understanding the multilevel organizational changes that can happen at the same time. Three transitional models are presented in Table 4 – Lewin's Change Management Model, Beckhard & Harris Change Process Model, and Bridges Transition Model.

Additional process models (Seven-stage Model of Change by Edgar Huse, 7 Stage Model of Change by Ronald Lippitt, Bullock and Batten's Planned Change Model, Kotter's 8-Step Change Model, and others) are also classified and presented in more detail in Table 4.

#### 3.2. Structural models of organizational change

Another general issue of organizational change relates to its content: what changes in the organizational change. From the review of concepts and programs of organizational change, it can be seen that the differences between them arose, among other things, because they had different content of organizational change. Although different elements appear in different models of organization and organizational change, those that are unavoidable in almost all concepts can be singled out.

The following Table 5 is an overview of different models of organization that can serve as the components lists of the organization that are most often included in models of organizational change as their object (Janićijević & Babić, 1998).

**Table 4** Process models of organizational change: classification

Model name	Reference
<i>Transitional models</i>	
Lewin's Change Management Model (1951)	(Burke, 2011; Cawsey & Deszca, 2007; Ceranić, 2003; Cone & Unni, 2020; Hussain et al., 2018; Janićijević, 1993; Jaško, 2000; Mašić, 2012; Špiler, 2012; Stojković, 2006; Zakić, 2007)
Beckhard & Harris Change Process Model (1987)	(Čudanov, Tornjanski, & Jaško, 2019; Young, 2009; Zakić, 2007)
Bridges Transition Model (1980)	(Burke, 2011; Hemmeter, Donovan, Cobb, & Asbury, 2015; Miller, 2017)
<i>The Seven-stage Model of Change</i> by Edgar Huse (1980)	(Burnes, 1996; National Organisation Development and Design Directorate, 2006)
<i>7 Stage Model of Change</i> by Ronald Lippitt (1958)	(Barrow, Annamaraju, & Toney-Butler, 2021; Kritsonis, 2004)
<i>Bullock and Batten's Planned Change Model</i> (1973)	(Bamford, 2006; Cameron & Green, 2012; Karasvirta & Teerikangas, 2022; Kennedy, Lewa, Maingi, & Mutuku, 2020; Rosenbaum, More, & Steane, 2018; Ullah, 2021)
<i>Kotter's 8-Step Change Model</i> (1995)	(Čuturić, 2005; Henry et al., 2017; Janićijević, 2002, 2004; Kotter, 1995, 1998; Kotter & Ratgeber, 2007; Passenheim, 2010; Stojanović-Aleksić, 2007; Stojković, 2006; Stouten, Rousseau, & Cremer, 2018; Toor et al., 2022)
<i>Judson 5-step Change Model</i> (1991)	(Cheung, 2010; Stouten et al., 2018)
<i>Kanter et al. - The Challenge of Organizational Change</i> (1992)	(Kanter, Stein, & Jick, 1992; Stouten et al., 2018)
<i>Galpin's Change Wheel</i> (1996)	(Cheung, 2010; Galpin, 1996; Green-Wilson, 2011)
<i>Readiness for Organizational Change</i> by Achilles Armenakis, Hubert Feild, and Stanley Harris (1999)	(Armenakis, Harris, & Feild, 2000)
<i>Luecke's Model of Teamwork and Change</i> (2003)	(Luecke, 2003)
<i>Janićijević-Babić Organizational Change Process Model</i> (1998)	(Čuturić, 2005; Janićijević & Babić, 1998)
<i>Janićijević's Model of Organizational Change Management</i> (2004)	(Janićijević, 2004; Petković, Janićijević, & Bogičević-Milikić, 2012)

Source: Authors' research

**Table 5** Structural models of organizational change: classification

Model name	Reference
<i>Leavitt Diamond Model</i> (1965)	(Blumberg, Cater-Steel, Rajaeian, & Soar, 2019; Burke, 1994; Coffie, Boaten, & Asombala, 2018; Čuturić, 2005; Janićijević & Babić, 1998)
<i>McKinsey 7-S Model</i> (1980)	(Čudanov, Dulanović, & Jevtić, 2005; Javied, Deutsch, & Franke, 2019; Manktelow & Carlson, 2014, 2014; Passenheim, 2010; Recklies, 2014, 2014; Waterman Jr, Peters, & Phillips, 1980)
<i>Weisbord's Six-Box Model</i> (1976)	(Burke, 1994; Burke & Litwin, 1992; Javera, Muhammad, & Waseef, 2018; Kontić, 2012; Stahl, 1997; Weisbord, 1976)
<i>Burke &amp; Litwin Model of Organisational Change</i> (1992)	(Burke, 1994; Burke & Litwin, 1992; Coruzzi, 2020; Egitim, 2022; Filej, Skela-Savić, Vicic, & Hudorovic, 2009; Olivier, 2018)
<i>Friedlander &amp; Brown Model</i> (1974)	(Cvijanović, 1992; Friedlander & Brown, 1974; Janićijević, 1993; Jaško, 2000; Stojković, 2006)

Source: Authors' research



Presented structural models of organizational change are based on the theory of open systems, i.e. they provide an answer to the question of what should be influenced during change and to some extent how to implement a given organizational change.

### 3.3. Integrated models of organizational change

Integrated models of organizational change are a combination of structural and process models and were created based on theory and practice. Each of the authors of the following models (Table 6) worked for some time as an organizational consultant, but they pursued an academic career also.

**Table 6** Integrated models of organizational change: classification

Model name	Reference
<i>Nadler-Tushman Congruence Model</i> (1980)	(Burke, 1994; Nadler & Tushman, 1980; Sabir, 2018; Tushman & Anderson, 1997; Walton & Nadler, 1994; Zakić, 2007)
<i>Denning's Model</i> (1968)	(Cvijanović, 1992; Denning, 1968)
<i>Cvijanović's Model</i> (2004)	(Cvijanović, 2004)

Source: Authors' research

Compared to the number of process models (14 are discussed in the paper) and structural models (the analysis included five of them), the theory of organizational change lacks more integrated models (only three have been identified and explained). This is because changes in previous decades have been viewed through the prism of processes or content, however, the modern age requires an integrated approach.

## 4. DISCUSSION

Theories of organizational change have mainly descriptive functions. They describe organizational changes and reveal their causes, course, and consequences. Theories and perspectives of organizational change are of academic character and their basic mission is to expand knowledge and understanding of the phenomenon that is in their focus.

Based on theories of organizational change, individuals can understand change, but they are not able to lead it. Theories and perspectives of organizational change are, for the most part, not practical enough. They are descriptive and seek to describe changes, and do not contain recommendations on how to report them.

On the other hand, models of organizational change are of a practical nature. Their mission is more prescriptive rather than descriptive, they seek to prescribe rather than describe the organizational change. The models contain practical knowledge in the form of recommendations on what needs to be done for the changes to take place effectively.

Process models of organizational change, initially with Lewin's since the middle of the previous century, are mostly sequential - steps, stages, phases - and are very useful for planning and managing the change process. Sequential planning in a linear and causal sense can be very useful: if we do A, B will follow; if Y occurs, it is probably due to X. Thus, they help us understand the meaning and logic of complex and seemingly unrelated organizational behaviors. However, on the other hand, if this approach is taken literally, unplanned outcomes may follow. It is necessary to keep in mind that when organizational changes really happen,

they are always more complex, ambiguous, and more complicated than the models show. For this reason, the process of implementing organizational change is nonlinear and often unpredictable.

As for structural models of organizational change, they can be helpful when it is necessary to conduct a quick and simple diagnosis in the company, but when a deeper and more complicated diagnosis of organizational condition and change is needed, only identified organizational elements are simply not enough.

The first integrated model of organizational change, a pragmatic congruence model, such as the Burke & Litwin model, presents the organization as an open (input, transformation, output), dynamic and social system whose purpose of existence will be more effectively achieved if there is a match between organizational factors. When applying the model, special attention should be paid to the relationship between strategy and environment, more precisely, their coherence, as well as the concordance of organizational components (tasks, employees, formal structures, and informal structures and processes). The model serves as a great reminder to leaders that discord and chaos in one part of the company will be reflected in other parts of the organization because one of the most obvious reasons for the failure of organizational change is focusing on one part of the company and neglecting others. Denning's model mainly classifies different schools of organizational theory and does not provide ways to identify problems, as well as strategies for overcoming them during change. Cvijanović's model perfectly articulates the impact of the environment on the company (internal and external), as well as the impact on employees. However, it does not answer the question of what is the content of the changes themselves, what are the vital organizational elements of the company, and how they are connected (such as the 7S model, the Six box model, and the Burke & Litwin model).

## 5. CONCLUSION

The aim of this paper is achieved since 22 of the most influential organizational change models from 1950 to 2020 were identified. Furthermore, these models are classified into three groups and further discussed. Special focus in the paper is given to answering the question of why theoretical organizational change models are useful and what their limitations are.

The outcomes of the study have important implications for the managers who lead the change since the models are based on certain theories and concepts of organizational change and translate them into good practice. Also, in addition to theoretical knowledge in some models, there is a lot of working experience from their authors infused into them. These are usually experienced consultants who have participated in the real changes of a large number of companies. The best models of change combine theoretical knowledge with practical experience, they include activities that managers or agents of change need to undertake in order to successfully implement change. These activities are usually grouped by phases, steps, orders, wedges, strategies, etc.

Organizational change models identified in this study could be valuable in improving the actions and decisions required for the successful execution of organizational change projects. Furthermore, the findings may enable managers to concentrate their efforts and resources on the critical issues that must be addressed in order for organizational change management to be successful. As a result, managers can improve the performance of organizational change initiatives by applying the findings of the study to design better strategies for improving

change management maturity inside their businesses. Finally, the findings of this study could be used to construct a new organizational change management model.

There are certain limitations to this study that should be addressed in future research. Despite conducting a thorough literature review with an emphasis on the most influential organizational change models published in reference journals, certain practical success elements may have been ignored. Future studies could identify additional important models that could lead to change success using other available research dealing with organizational change and make theoretical analysis more complete. These findings could be compared to the models and the findings of this study.

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## **NAJUTICAJNIJI MODELI UPRAVLJANJA ORGANIZACIONIM PROMENAMA OD 1950. DO 2020. GODINE**

*U savremenoj svetskoj ekonomiji, opstanak organizacije sve više zavisi od sposobnosti menadžmenta da razume i upravlja promenama. Organizacija je stalno u pokretu i ništa ne treba smatrati statičnim. Mnogi različiti faktori utiču na promene, a malo njih je pod kontrolom organizacije. Zadatak menadžmenta je da razume prirodu promena, prihvati ih i usmerava. Međutim, ne postoji opšteprihvaćen model u oblasti upravljanja organizacionim promenama. Mnogi istraživači i praktičari nisu uspeli da postignu konsenzus o tome koji model je efikasniji da bi organizaciona promena bila uspešna. Ovaj rad ima za cilj da identifikuje najuticajnije modele organizacionih promena od 1950. do 2020. godine. U cilju njihovog identifikovanja izvršena je analiza 16 vodećih časopisa. Prvih 10 časopisa navedeno je na listi Financial Times 50 kao najuticajniji u poslovanju i menadžmentu i odabrani su za analizu na osnovu njihove relevantnosti i užeg naučnog područja (upravljanje organizacionim promenama). Ostalih 6 časopisa odabrano je za analizu, jer ih izdaju prestižne svetske akademske institucije i imaju veliki uticaj na oblast organizacionih promena. Urađena je analiza časopisa u periodu od 1950. do 2020. godine i izdvojeno je 19 modela upravljanja organizacionim promenama koji su relevantni za ovo istraživanje. Potom je izvršen pregled domaće literature. Tu su identifikovana tri dodatna referentna modela pomoću ključnih reči: „model“ i „promena“ u okviru pretraživanja baze podataka COBIB.SR. Identifikovani modeli organizacionih promena su zatim dalje analizirani i podeljeni u tri grupe – procesni modeli koji se fokusiraju na stvarne korake ili faze promene – 14 modela, strukturni modeli koji razmatraju faktore promene – 5 modela; i integrisani modeli koji koriste kombinaciju prethodna dva pristupa – 3 modela.*

*Ključne reči: Organizacija, Najuticajniji modeli upravljanja promenama u organizaciji, Procesni modeli promena, Strukturni modeli promena, Integrisani modeli promena*

## **THE IMPACT OF LIQUIDITY MANAGEMENT ON FINANCIAL PERFORMANCE OF DEPOSIT MONEY BANKS IN WEST AFRICA**

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**Mayowa Gabriel Ajao, Emmanuel Nosagie Iyekekpolor**

University of Benin, Faculty of Management Sciences,  
Department of Banking and Finance, Benin City, Nigeria

ORCID iD: Mayowa Gabriel Ajao

 <https://orcid.org/0000-0002-2063-6888>

Emmanuel Nosagie Iyekekpolor

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**Abstract.** *This study investigates the effect of liquidity management on financial performance of deposit money banks (DMBs) by considering the banking sector of selected countries of the West African Monetary Zone (WAMZ). Aggregate banking sector data for the four selected economies were used from 1991 to 2020. The panel data regression analysis is also adopted for the empirical analysis after a statistical evaluation of the datasets are performed. The results from the empirical analysis reveal that reducing the cash to deposit ratio is the most efficient liquidity management strategy that may deliver enhanced performance for the DMBs among the sampled countries. Moreover, it was found that loans and advances to total assets have significant impact on financial performance of DMBs in West African countries. The ratio of loans and advances to total assets is limited to return on equity. There is also evidence that the ratio of loans and advances to deposit does not have a significant effect on financial performance of DMBs in West African countries. There is need for banks in the selected countries to monitor their deposit mobilization capacity since it has shown to have major implications on the liquidity management strategies in the banking sectors for the selected countries.*

**Key words:** liquidity management, financial performance, deposit money bank and panel regression.

**JEL Classification:** H62, L25, G21

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**Corresponding author:** Mayowa Gabriel Ajao

Department of Banking and Finance, Faculty of Management Sciences, University of Benin, PO Box 16122 Jhon Street, Benin 8007, Nigeria | E-mail: [ajao.mayowa@uniben.edu](mailto:ajao.mayowa@uniben.edu)

## I. INTRODUCTION

The banking sector globally is a major player in the financial system of any country, and has undergone profound innovation and technical changes which have determined their growth, profitability and competitiveness in recent times. The profitable operations of banks are essential for the hitch free operation of the financial system of any country, (Thevaruban, 2017). Increasing profit at the expense of liquidity can cause serious problems for banks, hence, a trade-off between the two contradictory objectives of liquidity and profitability needs to be struck. Liquidity management involves the planning and controlling of the demand and supply of the amount of liquid funds available to meet the banks' immediate needs without distorting the banks' regular operations and financial performance (Agbada & Osuji, 2013).

The global financial crisis of 2008 made Basel committee for bank supervision, as a financial body to advocate for the active management of liquidity (Marozva, 2015). In order to prevent any loss of confidence and trust that may lead to a bank run, banks have ensured they generate enough profit to meet the financial obligation of their clients and depositors (Idowu, Essien & Adegboyega, 2017). The relationship between funds liquidity profitability of DMBs is well documented in literature such as: Agbada and Osuji (2013), Bassey and Moses (2015), Okaro and Nwakoby (2016), Marozva (2015).

According to World Bank (2006:25) "there is need to undertake deeper analysis of financial sector performance in sub-Sahara Africa; where performance has not been impressive, as this would provide more information on commercial banking system in the sub-region". Besides, the selected countries (Nigeria, Ghana, Gambia and Sierra Leone) possess identical financial system frameworks based on the West African Monetary Zone (WAMZ), they also constitute the Anglophone (English speaking) countries in that sub-region. Also, the banking sector in these countries in recent past (though at different time) experienced strategic restructuring (consolidation) of their financial system toward enhancing their performance and meeting their stakeholders' needs. The practical contributions of this study cannot be overemphasized as it harps on the role of liquidity management on the financial performance of deposit taking institutions with specialized cross-country data set for the West African sub-region. Most importantly, in measuring the liquidity management factors, the study includes both loans and advances-related (Loan and Advances to Deposits [LAD] and Loan and Advances to Total Assets [LNA]) and other liquidity and cash-related factors (Cash to Total deposits [CTD] and Liquid Assets to total Assets [LTA]) as relevant in the analysis. Thus, the study contributes to the literature on the liquidity-performance argument by providing an expanded set of factors in the empirical analysis.

This study seeks to examine how the financial performance of banks in selected West African countries is influenced by various liquidity management factors using panel data regression analysis for the empirical analysis, after a statistical evaluation of the datasets was performed. Hence, the null hypothesis of this study is specified as follows:

*Ho: Liquidity management does not have significant impact on the financial performance of Deposit Money Banks in West Africa.*

The other sections of this paper are in the following order: We review extant literatures in section two while the research methods adopted for the study were discussed in section three. The presentation and interpretation of data analysis was covered in section four while section five contains the summary of major findings, recommendations and conclusion.



## 2. LITERATURE REVIEW

### 2.1. Conceptual Review

**Financial Performance:** Financial performance explains the difference between banks' operating expenses and income (Bassey & Moses, 2015). It explains how well a bank manages its assets, liabilities and earned revenues for the financial interest of its stakeholders: these outcomes are seen in the bank's financial performance. The overall evaluation of DMBs in relation to financial performance greatly influences their continuous growth (Bikker, 2008). Every business needs continuous return on investment for long term growth and survival as argued by Agbada and Osuji (2013).

**Liquidity:** Liquidity is the capacity to retire current financial obligations as they come due. It depends on the capacity of a company's cash plus near cash assets to offset any awaiting current liabilities. Bank's liquidity can be described "as the ability of bank to offset its current primary cash commitments, as at when due". For the operational activities of any deposit money bank to run smoothly, optimum liquidity must be maintained. It depends on the quantity of cash and near cash (quasi cash) to offset any awaiting current liabilities. The continuous process to maintain the availability of cash with little or no cost in line with the cash reserve requirement specified by the federal monetary authority is known as liquidity management. It is the quantity of liquid cash (or quasi cash) available to offset short term maturing deposits and contractual obligation. The inflows and outflows of liquidity in the economy by banks at a desired level without affecting profits generated in known as liquidity management (Agbada & Osuji 2013). It was argued by Eljelly (2004) that when current assets and liabilities are planned and controlled in such a way that it eliminates default risk requirement and reducing investment in these assets is known as effective liquidity management.

### 2.2. Liquidity Management and bank Performance

One main goal of DMBs includes maximizing revenue because of their shareholders as well as the staff and management of the organization because profit maximization is a primary objective of any bank. The financial sector is the pillar and bedrock of any viable country, and this is the reason why bank failure should not be an option. To avoid bank failure, liquidity must be maximizing to meet current liabilities as they come due. A bank that over maximize liquidity, sacrifices liquidity and reduces the profit of the bank because the idle fund cannot generate investment returns.

Liquidity is one of the drivers of deposit money banks profitability, hence must be maintained to ensure the financial health of banks. A bank that maintains a high level of liquidity provides sufficient funds to lend, improve on the return on interest generated from operations as well as financial performance. But poor liquidity planning and control reduce the financial performance of DMBs. The overall financial performance of these DMBs is important for the smooth operation of the financial system of any country. Therefore, liquidity management is important for a bank to sustain steady cash inflow so as to boost its financial performance for fair shareholders returns.

Bank customers are majorly interested in banks' ability to meet their primary responsibility of paying deposits whenever withdrawal is made, which is usually done within short or no notice (Bassey & Moses, 2015). Effective liquidity management helps the bank to have more operational funds in the short-run to satisfy the needs of its

depositors, other creditors and loan customers, thereby maintaining public confidence and boosting economic activities. The concept of liquidity management has not been treated with kid gloves by banks management because it helps to determine the solvency or insolvency of the organization.

Figures in accounting are irrelevant except when they convey some important financial information, hence for liquidity management statistics to make sense to the financial analyst, it must be related to other variables; in this case banks quantitative performance can be used to make qualitative judgment. Bank liquidity is commonly estimated by the current ratio, which is the ratio between the balance sheet current assets and liabilities. But excess liquidity is not good for the financial health of any bank because idle assets do not earn any return. When liquidity is related to financial performance, they are inversely related, meaning that as liquidity increases, there will be reduction in financial performance. Hence the reason to sustain a maximum level of adequate cash that will maximize the profitability of the bank.

### **2.3. Empirical Review**

In Nigeria, Bassey and Moses (2015) investigated the relationship between liquidity and performance of DMBs from 2010-2012. The panel data was estimated with OLS techniques and the findings suggested that a statistically significant relationship exists amongst liquidity ratio and performance. In Ghana, Nkegbe and Ustarz (2015) examined determinants of banks' profitability in Ghana from the period 2000 – 2010 using trend analysis with cross sectional data. The result revealed an inverse trend in banks profitability during the period covered by the study.

Song'e (2015) reveals a direct links between financial performance and liquidity variables, when a study was carried out to examine the linkage between liquidity and profitability of deposit taking Saccos in Nairobi county between the period 2010 – 2014. The secondary data collected from 27 deposit Saccos was analysed with regression analysis. In Nigeria, Duruechi, Ojiegbe and Otiwu (2016) measured the effectiveness of liquidity management and banks performance from 1999-2014. Time series data was analysed with some preliminary tests and diagnostic tests. The result revealed the presence of dual and long-term relationship between liquidity management and banks performance. Okaro and Nwakoby (2016) assessed how DMBs are affected by liquidity management from (2000-2015). The secondary data was analysed with the OLS regression and the result revealed that an increase in liquidity ratio leads to decrease in banks' profitability. DMBs should adopt other measures of meeting depositor's demand at the expense of holding excess liquid cash. The shiftability theory and anticipated income theory are recommended here. Salim and Mohamed (2016) investigated the impact of liquidity management on financial performance in Omani banking sector from 2010-2014. The study concluded that a significant relationship exists between the measures of liquidity and bank's ROA and ROE.

Thevaruban (2017) investigated the factors influencing banks profitability in Sri Lanka from the year 2012 to 2016. The study employed multiple regression analysis and Pearson correlation test to analyse the secondary data. The findings of the study established a significant relationship between liquidity and profitability of commercial banks in Sri Lanka. Hence higher liquidity in DMBs enhances the availability of adequate funds to generate loans, thereby leading to higher financial performance. Hasanovic and

Latic (2017) identified determinants of excess liquidity in Bosnia & Herzegovina (B&H) banking sector from 2006 – 2015 using the Generalised Method of Moment (GMM). The results suggested bank non-performance loans as an important factor of excess liquidity amongst internal factors. Mucheru, Shukla and Kibachia (2017) revealed a positive relationship between cash management and financial performance of commercial banks when they determined the effect of liquidity management on the financial performance of commercial banks in Rwanda from 2014 to 2016. The secondary data was analysed with multiple regression and it was concluded that excess liquidity will lead to reduction in banks' income and profit.

In Nigeria, Edem (2017) studied liquidity management and profitability of DMBs between the period 1986 and 2011. The 24 DMBs operating in the country were the sample size, using linear regression. The analyzed results revealed a direct relationship between liquidity management and ROA, and a significant relationship between liquidity management and performance of DMBs, hence optimum liquidity should be kept to maximize returns.

Idowu, Essien and Adegboyega (2017) examined liquidity management and banks performance in Nigeria between the period 2006 and 2015, using a sample size of four DMBs. The study analyzed the data with Pearson correlation coefficient with ROA and ROE as measures of performance and liquidity ratios as explanatory variables. The findings showed that bank liquidity has significant relationship on ROE and ROA. Onyekwelu, Chukwuani and Onyeka (2016) appraised the effect of liquidity management on financial performance of deposit money banks in Nigeria from 2007 to 2016. Using multiple regression, the results show direct and significant relationship between liquidity and financial performance. Shah, Khan, Shah and Tahir (2018) investigated determinants of banks liquidity in Pakistan from 2007-2016. The sample size was 23 banks operating in the country. Panel regression technique was used to estimate the relevant data. The findings indicate that an insignificant relationship exists between liquidity and profitability. Bayoud, Sifouh, and Chemlal (2018) examined the factors of financial Moroccan banks performance between the period 2004 and 2016. The fully modified ordinary least squares (FMOLS) method was used to analyze the co-integrated panel data. The findings show that a set of internal variables explain the financial performance of banks.

Wuave, Yua and Yua (2020) established that positive and significant relationship exists between liquidity and profitability of DMBs in Nigeria from 2010 to 2018 when data was analyzed with panel regression analysis. Adewusi and Adeleke (2020) concluded that banks' performance is significantly influenced by liquidity risk management in Nigeria from 2013 to 2017 when pooled regression was used as analytical technique. Sathyamoorthi, Mapharing and Dzimiri (2020) studied the effect of liquidity management on the profitability of banks in Botswana from 2011 to 2019. The correlation and regression analyses show that liquidity management has significant positive influence on the profitability of Botswana banks.

Hacini Boulenfad and Dahou (2021) study revealed that liquidity risk management has negative impact on Saudi Arabian banks' performance (ROE) from 2002 to 2019 with the use of panel data analysis technique. Dahiyat, Weshah and Aldahiyate (2021) employed ROA and EPS as performance variables in their study of the impact of liquidity on the financial performance of Jordanian manufacturing firms from 2010 to 2019. The study results show a statistically significant impact of liquidity on financial performance.

From these empirical reviews, it is evident that most studies such as Bassey and Moses (2015), Duruechi et al (2016), Thevaruban (2017), Onyekwelu et al (2016), Sathyamoorthi et al (2020) and Adewusi et al (2020) have examined liquidity management and financial performance of DMBs of an individual country. However, to the best of the researchers' knowledge, no study has been done on a group of West African countries. Hence this study differs from those above in that it specifically assesses the effect of liquidity management on financial performance of DMBs in selected West African Countries for the period 1991 to 2020.

### 3. METHODOLOGY

The study adopts the casual and historical research designs. Its causal nature is hinged on how to explore the cause and effect linkage between the liquidity management and profitability as specified in the models over a time scope of 1991-2020. The population and sample of this study constitute all DMBs in the Gambia, Ghana, Nigeria and Sierra Leone from 1991-2020. The main source of the data was annual financial reports submitted to the selected countries Central banks, hence aggregate and countrywide data for each country were adopted for this study. The sample consists of all DMBs (Gambia [13], Ghana [24], Nigeria [20] and Sierra Leone [12]) that had been in operation from 1991 to 2020.

#### 3.1. Model Specification

In order to provide an analytical basis to test the empirical validation, this study will adopt one of the banks liquidity and performance model by Bassey and Moses (2015). The mathematical form of the mode is given as:

$$ROE_{it} = f(CRR_{it}, LTA_{it}, LAD_{it}, CTD_{it}, LNA_{it}) \quad (1)$$

Where:

ROE<sub>it</sub> = Return on equity of banks in period t

CRR<sub>it</sub> = Current ratio i.e. current asset to current liability

LTA<sub>it</sub> = Liquid assets to total assets ratio

LAD<sub>it</sub> = Loans and advances to deposits ratio

CTD<sub>it</sub> = Cash to total deposit ration

LNA<sub>it</sub> = Loan and advances to total assets ratio

However, due to the nature of DMBs whose stock in trade is cash deposited by their customers, CRR and CTD in the model above are essentially one and the same type of liquidity measure. Thus CRR will be removed from the model. Also, to take cognizance of the heterogeneous nature of the banks to be included in this study, Bank size (BSIZE) (measure as shareholders' fund) will introduced into equation (1) above as control variable. From the foregoing, the mathematical model for this study is specified as:

$$ROE = f(CTD, LTA, LAD, LNA \text{ and } BSIZE) \quad (2)$$

However, for the purpose of comparison, this study adopts two distinct measures of profitability "Return on Equity (ROE) and Return on Asset (ROA)". Hence, equation 2 is specified in its econometrics form using the two performance measures as:

$$ROE_{it} = \alpha_0 + \lambda_1 CTD_{it} + \lambda_2 LTA_{it} + \lambda_3 LAD_{it} + \lambda_4 LNA_{it} + \lambda_5 BSZ_{it} + \varepsilon_{it} \quad (3)$$

$$ROA_{it} = \phi_0 + \beta_1 CTD_{it} + \beta_2 LTA_{it} + \beta_3 LAD_{it} + \beta_4 LNA_{it} + \beta_5 BSZ_{it} + U_{it} \quad (4)$$

$\alpha_0, \phi_0$  = constant term,

$\lambda_1 - \lambda_5$  and  $\beta_1 - \beta_5$  = coefficients to be estimated.

$\varepsilon$  and  $U$  = error term.

$i, t$  = bank  $i$ , time  $t$ .

The a priori expectation are given as:  $\lambda_1$  &  $\beta_1 < 0$ ;  $\lambda_2 < 0$ ;  $\lambda_3$  &  $\beta_3 > 0$ ;  $\lambda_4$  &  $\beta_4 > 0$  and  $\lambda_5$  &  $\beta_5 > 0$ .

### 3.2. Data Analysis Techniques

The analytical technique that was applied to estimate models (3 and 4) is the panel regression to minimize the effect of aggregation bias and estimate both time series and cross sectional data. Other tests that were conducted are cross-section dependence test, unit root and co-integration tests for stationarity of data.

## 4. DATA ANALYSIS AND INTERPRETATION

### 4.1. Descriptive Statistics

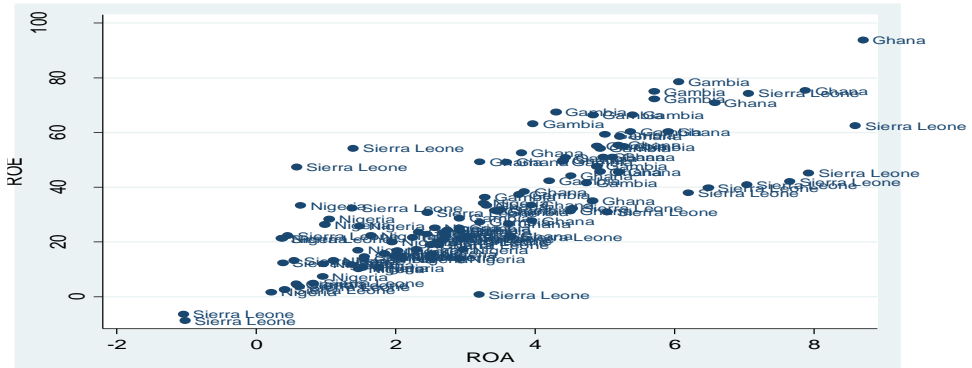
**Table 1** Descriptive Statistics

Variable	Mean	Max.	Min.	Std. Dev.	Skewness	Kurt.	J-B	Prob
ROA	3.25	8.71	-1.04	2.03	0.43	2.89	3.73	0.15
ROE	30.86	93.82	-8.67	20.35	0.77	3.21	10.14	0.01
LTA	6.11	12.43	0.99	3.14	-0.08	1.87	6.51	0.04
LNA	21.02	65.98	2.14	14.80	0.71	2.38	12.11	0.00
LAD	52.13	88.98	20.94	16.22	0.14	1.99	5.46	0.07
CTD	38.35	87.86	1.74	25.52	0.09	2.06	4.61	0.10
BSIZE	19.81	43.40	2.50	10.55	0.23	2.14	4.75	0.09

*Source:* Authors' computation E-view 10.0,2021.

The summary statistics for the datasets are also reported in Table 1. Average ROA is 3.25 percent while average ROE is 30.86 percent. This implies that there is almost a ten-fold size of ROE over that of ROA among the banks in the WAMZ sub-region. Average liquidity ratio (LTA) is 6.11 percent, suggesting that only about 6 percent of assets among the banks is liquid. This is not an impressive level, and the regulators need to encourage the banking system to improve on liquidity in terms of asset size. The other measure of direct liquidity (CTD) however has an average ratio of 38.35, indicating that the CTD is high. The LDR is over 52 percent, which puts the banks at a higher risk when there are defaults. The standard deviations of the variables are low, indicating the reported mean values are all representative of the banking systems of the selected countries. Figure 1 shows the correlation chart between the two dependent variables. It shows a very steep positive slope between the variables, indicating that profitability among the banks for the countries have similar characteristics in terms of direction of movement. When banks' ROA is rising, the ROE is also simultaneously increasing. The shape of the chart appears to be a positive exponential curve, indicating that

higher levels of increases in ROA are linked to faster increases in ROE and vice versa for the banking systems of the four countries.



**Fig. 1** Relationship between ROA and ROE

Source: Authors’ computations, Eview 10.0, 2021.

**4.2. Correlation Analysis**

**Table 2** Correlation Matrix

Variable	LTA	LNA	LAD	CTD
LNA	-0.633 (0.000)			
LAD	-0.519 (0.000)	0.395 (0.000)		
CTD	0.727 (0.000)	-0.445 (0.000)	-0.594 (0.000)	
BSIZE	0.514 (0.000)	-0.020 (0.842)	-0.397 (0.000)	0.437 (0.000)

Source: Authors’ computation, E-view 10.0, 2021.

From the correlation matrix in Table 2, it is seen that the relationships among the explanatory variables are strong in either direction. Essentially, none of the correlation coefficients is too large to elicit multicollinearity problems in the estimation of the models in the study.

A strong positive correlation is noted between LTA and BSIZE, suggesting that the level of liquidity in the banking systems for the countries is positively related with cash to deposit ratio and the bank size. Thus, banks with larger deposits are more liquid and bigger banks also exhibit higher levels of liquidity. On the other hand, LTA is negatively related to LNA and LAD, indicating that banks with bigger loans and advances ratios tend to be limited in terms of liquidity. Thus, the analysis shows that deposits and size matter for better liquidity systems, while loans tend to depreciate liquidity within the banks. This calls for better management of deposits and loans in order to ensure that liquidity is maintained among the banks in the countries. There is also a positive correlation between LNA and LAD and between bank size and CTD. This is to be expected since loan size and deposits appear to be attractive within the banking sectors of the selected countries.

### 4.3. Stationarity Tests

**Table 3** Stationarity Tests Results

Variable	Homogenous Unit Root Process		Heterogeneous Unit Root Process			Remarks	
	Intercept and Trend						
	LLC		IPS		ADF-Fisher		
	<i>I</i> (0)	<i>I</i> (1)	<i>I</i> (0)	<i>I</i> (1)	<i>I</i> (0)	<i>I</i> (1)	
ROA	-0.742	-6.914	-1.330	-8.030	13.471	66.67	Stationary
ROE	-0.379	-3.514	-0.504	-5.419	8.576	43.86	Stationary
CTD	-0.899	-6.282	-0.654	-6.702	1.566	54.53	Stationary
LAD	-0.242	-6.616	-0.657	-6.453	2.525	52.70	Stationary
LNA	0.993	-6.228	1.352	-6.890	7.431	57.25	Stationary
LTA	0.626	-5.516	0.049	-7.239	6.763	59.95	Stationary
BFSIZE	-0.235	-5.708	0.612	-5.487	5.960	44.53	Stationary

Note: \*\* and \* indicate significant at 1% and 5 % levels respectively;

IPS = Im, Pesaran & Shin; LLC = Levin, Lin & Chu

Source: Estimated by the Authors

The stationarity properties of the data were examined using three distinct tests “Levin, Lin and Chu (LLC), Im, Pesaran and Shin and the Augmented Dickey-Fuller tests”. This is to enable us identify and understand the homogenous and heterogeneous characteristics of the cross sectional data. The tests results are presented in Table 3

### 4.4. Cointegration Test

**Table 4** Panel Cointegration Tests Results

<i>ROA Equation</i>							
	Within-dimension				Between-dimension		<i>Kao</i>
	Unweighted		Weighted		Statistic	Prob	
	Statistic	Prob.	Statistic	Prob.			
Panel v-Statistic	-6.59	0.16	-9.57	0.12			-3.37 (0.00)
Panel rho-Statistic	10.34	0.033	10.439	0.01	13.94	0.03	
Panel PP-Statistic	-20.89	0	-29.44	0	-42.5	0	
Panel ADF-Statistic	-18.35	0	-23.38	0	-47.77	0	

<i>ROE Equation</i>							
	Within-dimension				Between-dimension		<i>Kao</i>
	Unweighted		Weighted		Statistic	Prob	
	Statistic	Prob.	Statistic	Prob.			
Panel v-Statistic	-6.6	0.06	-9.95	0.16			-5.04 (0.00)
Panel rho-Statistic	9.86	0.03	10.16	0.04	13.73	0.04	
Panel PP-Statistic	-23.1	0	-33.07	0	-44.41	0	
Panel ADF-Statistic	-28.09	0	-35.48	0	-48.89	0	

Source: Authors' computations, Eview 10.0, 2021.

Table 4 displays the results of the Pedroni and Kao panel co-integration tests. The coefficients of the IPS and Augmented Dickey Fuller test statistics are significant at the 5 percent level which is also supported by Kao panel cointegration test. The Kao residual cointegration test shown in Table 4 shows that the null hypothesis of no co-integration can be rejected for each of the equations. Thus, the cointegration tests results show that there are strong long run relationships among the variables in the study. The panel estimation framework can therefore be employed in the empirical analysis.

**Table 5** Hausman Test for Cross-Section Random Effects

Model	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
ROA	5.34	6	0.5006
ROE	7.89	6	0.667

Source: Authors' computations, Eview 10.0, 2021

For the traditional panel data analysis procedure there is need to select between the fixed effects or random effects models as the best representation of the relationships. From the test results in Table 5, the Chi-Square statistic is not significant at any level, thereby rejecting the fixed-effects estimation technique. This implies we adopt the Random Effects for the estimation.

**Table 6** Liquidity Management and Bank Performance

Variable	<i>Dep variable = ROA</i>			<i>Dep. variable = ROE</i>		
	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.
C	4.578	4.135	0.000	37.258	3.725	0.000
LTA	0.139	2.357	0.037	1.002	1.025	0.308
CTD	0.016	2.048	0.043	0.301	3.230	0.002
LAD	-0.015	-1.265	0.209	0.032	0.263	0.793
LNA	-0.014	-0.866	0.389	0.190	3.302	0.001
BSIZE	-0.088	-3.993	0.000	-1.012	-4.981	0.000
Adj R-sq	0.230			0.348		
F-stat	8.119			11.654		

Source: Authors' computations, Eview 10.0, 2021

The random effect estimates for examining how financial performance are impacted by liquidity management of the banking systems among WAMZ countries is analyzed in this section. In the results shown in Table 6, the adjusted R-squared values are 0.23 and 0.348, indicating that a significant proportion of the dependent variables were effectively explained in the models. More importantly, the significant F-test indicates that the dependent variable was significantly related to all independent variables and that bank performances are influenced by liquidity dynamics.

The relevance and effectiveness of each of the explanatory variables in terms of influencing changes in performance indicators are evaluated by considering the coefficients of the explanatory variables in terms of signs and significance. In the results, the coefficient of LTA is significant at the 5 percent level for the ROA equation but fails the significance test in the ROE equation. This indicates that liquidity ratio only matters for operational efficiency of the banks but not in explaining the direction of market



outcomes of the banks. The coefficient of LTA in the ROA equation is positive and shows that increase in the liquidity of the banks in relation to assets significantly boosts return on asset of the banks. Thus, banks are essentially better off when they allow more of their asset base to be more liquid. This may effectively promote the capacity of banks to lend and perform core intermediary functions in the financial system. The coefficient of the other direct liquidity variable (CTD) is significant in both the ROA and ROE equations, suggesting that rising cash to deposit ratios effectively influences overall performances of the banking system among WAMZ countries. For the loan related variables, the results in Table 6 show that the coefficient of LNA (loan to asset ratio) fails the significance test in the ROA equation but passes the test in the ROE equation. This indicates that when loans increase in relation to assets in the banks, the return on equity improves. Thus, shareholders' funds are better managed by expanding loans in the banks in relation to assets. On the other hand, loans to deposit ratio (LAD) fails the significance test for both ROA and ROE equations. This implies that loans do not expand financial performance among WAMZ banking sectors over time. The coefficient of bank size is negative in both equations and suggests that bigger banks tend to perform less among WAMZ countries.

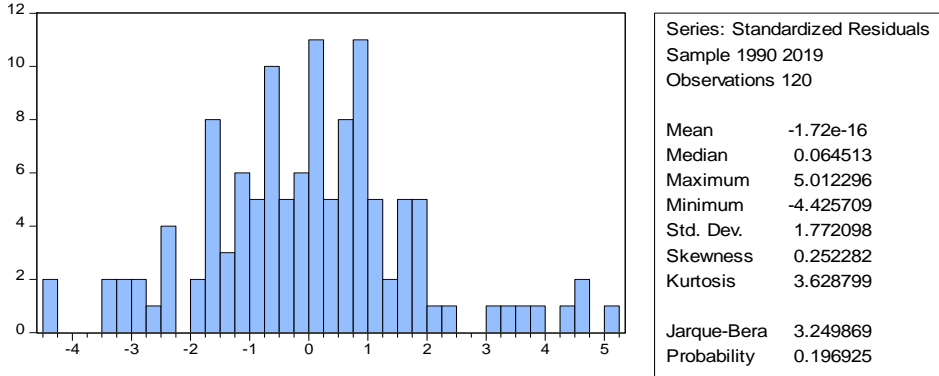
**Test of Hypothesis:** From the results in Table 6, the coefficient of the direct liquidity variable Cash to Total Deposit (CTD) is significant in both the ROA and ROE equations. We can sufficiently reject the null hypothesis that liquidity management does have significant impact on the financial performance of Deposit Money Banks in West Africa.

**Diagnostic Tests:** The post-estimation tests are carried out to examine the significance of estimations conducted in this study. The "Variance Inflation Factor (VIF)" test was conducted to ascertain the existence of a linear relationship among the variables. The results of the VIF are reported in Table 7. Theoretically, "Variance inflation factors (VIF)" ranges from 1 upwards. The results from Table 7 show that all the variables have variance inflation ratio of less than 10 for each of the countries. This is a critical condition for observing the absence of multicollinearity in the estimates. The VIF results complement those reported in the correlation matrix in Table II and suggest absence of multicollinearity in the models of the study.

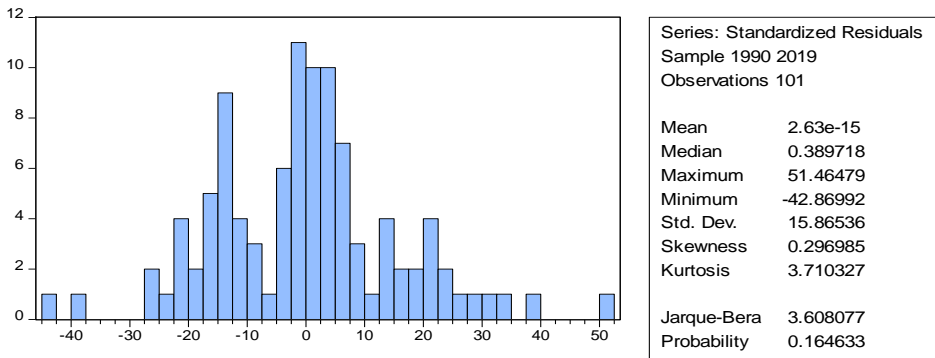
**Table 7** Variance Inflation Factor (VIF) Test for MultiCollinearity

Statistics	ROA		ROE		LNA		LTA	
	Max  z	Prob.	Max  z	Prob.	Max  z	Prob.	Max  z	Prob.
<i>ROA equation</i>								
Gambia	2.56	0.04	1.96	0.19	1.35	0.54	1.18	0.66
Ghana	11.3	0.00	2.02	0.16	2.34	0.07	3.30	0.00
Nigeria	1.00	0.79	1.54	0.41	0.62	0.95	6.25	0.00
Sierra Leone	0.25	1.00	2.44	0.06	1.76	0.28	3.50	0.00
<i>ROE equation</i>								
Gambia	1.32	0.56	1.2	0.65	1.35	0.54	4.03	0.01
Ghana	1.83	0.24	1.84	0.24	2.01	0.17	1.08	0.32
Nigeria	1.75	0.29	0.96	0.81	0.9	0.84	2.99	0.19
Sierra Leone	2.19	0.11	1.16	0.68	1.51	0.43	0.93	0.33

\* Probability approximation using studentized maximum modulus with parameter value 14 and infinite degrees of freedom  
*Source:* Authors' computations, Eview 10.0, 2021



**Fig. 2** Normality test for ROA equation



**Fig. 3** Normality test for ROE equation

The tests of normality for the probability function of the estimated models are also conducted. Figures 2 and 3 show the histogram plot of the errors or residuals in the estimates, which is used to measure the probability density of the residual estimates. Clearly, the charts show that the distribution of the estimate errors or residuals is non-normal, given the bell-like shape of the diagram. This is also demonstrated by the J-B statistic values of 3.25 ( $pr = 0.196$ ) for ROA and 3.61 ( $pr = 0.164$ ) for ROE which both fail the significance tests. This therefore implies that even though the data sets were not normally distributed, the estimated equations pass the normality conditions for the residuals. This further improves on the robustness of the estimates in the study.

**5.1. Findings**

The results found in the empirical analysis of this study provide basic background for the evaluation of the roles of liquidity management patterns on bank performance. First, the study has shown that liquidity management of banks, in terms of cash management, generally plays strong roles in explaining performance of the banking sectors among the selected West African countries. Apparently, efficient liquidity management patterns are likely to yield positive effects that both improves overall efficiency of the banks and also

boosts long term performance. This line of findings is also shown in previous studies by Adewusi et al., (2020) and Wuave et al., (2020).

The role of liquidity in the performance of banks among the selected countries in the study has also been shown to essentially vary on the basis of the performance term. Although previous studies have indicated that liquidity matters, in general terms, for the overall performance of banks among several African and developing country economies (Ferrouhi, 2014; Song'e, 2015), our study has demonstrated that this may not fully be the case for the West African countries. The findings from the study indicate that liquidity ratio does not explain the direction of market outcomes of the banks. Thus, liquidity of banks for the WAMZ economies is more related to the immediate efficiency of banking activities.

Moreover, the cash to deposit ratio was found to significantly impact on return on equity among the West African DMBs. Apparently, cash management that favours more liquid holdings against the pattern of deposits presents more facilities for the banks to maintain more efficient banking functions. Rising cash holdings to deposits ratio aids in the servicing of net withdrawals from customer as well as facilitating other activities like customers drawing from their deposit (checking and savings) accounts (Biswal & Gopalakrishna, 2014; Goel & Kumar, 2016). This outcome confirms the work of Bassey & Moses (2015) and Agbada & Osuji (2013) who found that cash-dominated strategies significantly influence banks' profitability. From the empirical analysis, there is evidence that the ratio of liquid assets to total assets does not have any meaningful effect on ROE. This indicates that overload of cash in the system tends to weaken operational efficiency in the short run among the banks. Indeed, indicating that increasing cash reserves in the short run will limit market performance of the banks in WAMZ (Biswal & Gopalakrishna, 2014). The results are also in agreement with previous findings concerning the role of liquid asset management in the banking system (Kagoyire & Shukla, 2016; Wadike, Abuba & Wokoma, 2017).

The study also found that the ratio of loans and advances to deposit does not have a significant impact on financial performance of DMBs in West Africa. This is based on the insignificant effects of loans and advances to deposit ratio on return on equity in the study. This implies that the lending habits of the banks are essentially not efficient in terms of promoting their profit earnings. In this direction, loan strategies that focus on managing customers' deposits will not yield ultimate performance outcomes. This outcome may be largely linked to the financial climate in many developing economies, where credit management involves more unique strategies for banks that seek to excel (Alobari et al., 2018; Olaoye & Fajuyagbe, 2020). The ratio of loans and advances to total assets has significant impact on the financial performance of DMBs in West Africa. The findings in this direction support the findings of Sathyamoorthi et al. (2020) with significant and positive effect on ROE.

Finally, there is also evidence in the study that shareholders' funds are better managed by expanding loans in the banks in relation to assets. This outcome is feasible given that loan activity is a major segment of banking activities, among the banking systems of the WAMZ economies (Bassey & Moses, 2015; Nkegbe & Ustarz, 2015). The focus of shareholders is on building assets and critical aspects of the financial management of the firms. Hence, they would always pursue activities that improve on loan management in terms of minimizing loan default and weak application of the loan systems for the banks. Hence, return on equity, which is related to the stimulation of shareholder's funds is more related to loan management strategies that are efficiently targeted in line with overall liquidity management of the banks. This finding is also in line with the outcomes of previous studies (Taiwo et al., 2017; Tuffour, Owusu & Ofori-Boateng, 2018; Kafidipe et al., 2021).

## 5.2. Recommendations and Conclusion

The results obtained in the study provide effective background for policy directions. These policy recommendations from the study therefore include:

The Central Monetary Authority should seek to maintain cash balances that are optimal for the banking system. The action of the monetary authority to always tend to push the banks into more lending systems, need to be checked given that our study has shown that overt loan activities may hamper bank performance in the long run among the West African economies. In meeting short term cash requirements of customers, banks in the sub-region need to evolve innovative measures that do not put pressure on the cash reserve systems. For instance, rather than holding excessive liquidity, commercial banks may employ the system of borrowing and discounting bills. Finally, management of the surplus funds (usually in form of cash) needs to improve and focus more on investing in short-term instruments on a seasonal basis. Furthermore, when funding, sourcing by banks is concentrated in the wholesale markets, then the risks of liquidity shocks tend to be more concentrated both for individual banks and within the banking system. In the same vein, "heavy dependence on inter banking funding tends to expose banks to unmanageable risks once confidence weakens".

This study has shown that indeed, liquidity management that relates to loan and cash management is critical for ensuring improvements in performance for the banks in the sampled countries. It is shown that loans and other liquidity management is more strategic and efficient when deposits of the banks are taken into cognizance. This is because the managers realize that the interactions among lending, cash positions portend much risk to the banking sector which require constant consideration. It is also clear from the study that risks that require efficient liquidity management among the banking sectors of the selected countries are relatively high and appear to be rising. Essentially, managing risk in banks is a crucial issue which requires expertise knowledge with strategic liquidity management solutions that can minimize its ravaging effects on the banking operations. There is also the need for banks in the selected countries to monitor their deposit mobilization capacity and asset base since these elements have been shown to have major implications on the liquidity management strategies in the banking sectors of the selected countries. The panel regression analysis used in this study is not without its limitations and one of such limitations comes from the possible over parameterization of the regressors which could weaken the significance of the model. However, this was addressed by using suitable lag length criteria to choose appropriate lag length for the study. But for further research in this topic, the use of advanced econometric methods and expanding the scope of the study to cover the Sub-Saharan African countries is recommended.

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## **UTICAJ UPRAVLJANJA LIKVIDNOŠĆU NA FINANSIJSKE PERFORMANSE DEPOZITNIH BANAKA U ZAPADNOJ AFRICI**

*Ovaj rad istražuje efekte upravljanja likvidnošću na finansijske performanse depozitnih banaka novca baveći se bankovnim sektorom odabranih zemalja u okviru monetarne zone zapadne Afrike (WAMZ). Uzeti su zbirni podaci bankovnog sektora za četiri odabrane zemlje za period od 1991 do 2020. Regresiona analiza panel podataka je takođe usvojena za empirijsku analizu nakon što je izvršena statistička procena skupova podataka. Rezultati empirijske analize otkrivaju da je smanjenje razmere gotovine i depozita najefikasnija strategija upravljanja likvidnošću koja može da dovede do poboljšanja performansi banaka u proučavanim zemljama. Štaviše, ustanovljeno je da krediti i plasmani u ukupnu aktivu imaju značajnog uticaja na finansijske performanse banaka u Zapadnoafričkim zemljama. Odnos kredita i avansa u ukupnoj aktivu ograničen je na prinos na kapital. Ima dokaza i da odnos kredita i avansa za deposit nema značajnog uticaja na finansijske performanse depozitnih banaka u Zapadnoafričkim zemljama. Postoji potreba da banke u odabranim zemljama prate svoje kapacitete za mobilizaciju depozita jer se pokazalo da to ima značajnog uticaja na strategije upravljanja likvidnošću u bankovnom sektoru odabranih zemalja.*

*Ključne reči: upravljanje likvidnošću, finansijske performanse, depozitne banke novca i panel regresija*

## **IMPACT OF THE COVID-19 PANDEMIC ON THE ECONOMIC EFFECTS OF TOURISM IN CENTRAL, EASTERN AND SOUTHEASTERN EUROPE (CESEE) COUNTRIES**

*UDC 616.98:578.834]:338.48(4)*


**Tanja Stanišić, Miljan Leković, Sonja Milutinović**


University of Kragujevac, Faculty of Hotel Management and Tourism in Vrnjačka Banja,  
Republic of Serbia

ORCID iD: Tanja Stanišić

Miljan Leković

Sonja Milutinović

 <https://orcid.org/0000-0001-5809-794X>

 <https://orcid.org/0000-0002-4952-3991>

 <https://orcid.org/0000-0001-9913-4495>

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**Abstract.** *The Covid-19 pandemic has brought numerous challenges and limitations globally. Countries around the world are facing the negative socio-economic consequences of the global health crisis. As the tourism sector is one of the most important sectors of the global economy and also one of the sectors hit hardest by the crisis, the consequences of the negative impact of this crisis in tourism are very wide. The subject of this paper is to investigate the impact of the Covid-19 pandemic on the economic effects of tourism in Central, Eastern and Southern European (CESEE) countries. The aim of this paper is to analyse the homogeneity, i.e. heterogeneity of the analysed countries in terms of the negative impacts of the crisis on the economic effects of tourism through the analysis of the reduction of the contribution of tourism to key macroeconomic indicators under the influence of the Covid-19 pandemic. By applying cross-country comparison and cluster analysis, it was concluded that CESEE countries are not homogeneous in this sense, as well as that countries in which the importance of tourism for the national economy is greater are more severely affected by the crisis.*

**Key words:** *tourism, economic effects, Covid-19*

**JEL Classification:** Z30, Z32

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**Corresponding author:** Tanja Stanišić

Faculty of Hotel Management and Tourism in Vrnjačka Banja, University of Kragujevac, Vojvodjanska bb, 36210 Vrnjačka Banja, Republic of Serbia | E-mail: [tanja.stanistic@gmail.com](mailto:tanja.stanistic@gmail.com)

## 1. INTRODUCTION

Tourism is an industry that has shown exceptional sensitivity to various types of crises of economic and non-economic nature. The data show that tourist demand has always shown a high degree of elasticity in relation to the influence of external factors. On the other hand, tourism has usually shown an exceptional ability to recover in the previous period. Tourist traffic reached the level of the pre-crisis period very quickly in the years after the crisis or even exceeded it. However, none of the crises recorded so far in the modern development of tourism has had such intense negative effects as the still current health crisis, i.e. the Covid-19 pandemic. The world is currently facing a health crisis that has a number of specifics in general, but also in terms of the way it affects the tourism sector. The dramatic decline in tourist traffic is of a global character and applies to all countries of the world, and a complete recovery is uncertain even after a little more than two years. The economic collapse caused by the crisis has been extremely dramatic, the impact on the tourism industry is very destructive, the crisis has led and is expected to lead to further changes in many tourism segments (Kreiner & Ram, 2020; Škare et al., 2021). The Covid-19 pandemic has brought a number of lessons to learn from both demand side and supply side in tourism.

In addition to its sensitivity, tourism is a strategic sector of the economy in many countries around the world with numerous economic effects (Luković & Stojković, 2020). The contribution of tourism to key macroeconomic aggregates, i.e. gross domestic product (GDP) and employment is significant. This fact further deepens the serious negative effects of the crisis. Considering the differently perceived importance of tourism for the national economy of a certain country, but also considering their different possibilities, in the past period, different responses of the tourism policy of countries have been recorded when it comes to mitigating the negative effects of the crisis on tourism. When it comes to the economic effects of tourism, it can be generally concluded that all countries are facing a serious reduction in the share of tourism in GDP and employment.

Despite numerous papers published on the topic of the Covid-19 impact on tourism, there is still, to the knowledge of the authors, no significant academic discussion on the impact of the pandemic on the economic effects of tourism, nor have significant efforts to perform comparative cross-country analysis been made. The paper is an attempt to contribute to filling this gap in the literature. The subject of the analysis are the Central, Eastern and Southeastern Europe (CESEE) countries, with the intention to review and compare the intensity of the reduction of tourism share in GDP and employment of the analysed countries under the influence of the Covid-19 pandemic. The aim of this paper is to analyse the participation of tourism in key macroeconomic indicators in the year before the crisis and the first year of the crisis, to see the homogeneity and heterogeneity of the analysed countries in terms of negative impacts of the crisis on economic effects of tourism. The analysis will provide an answer to the question of whether countries in which tourism is more important in the national economy are more affected by the negative effects of the crisis.

## 2. LITERATURE REVIEW

As tourism is based on the movement of people, it is not surprising that the Covid-19 pandemic has made tourism one of the most vulnerable activities. Namely, governments around the world have made enormous efforts to prevent the spread of the virus, and



these efforts have largely related to restricting the movement of people. Restrictions on mobility have had a direct negative impact on tourism (Özen & Özdemir, 2021). Drastic measures taken by certain countries, which were reflected in the locking in a certain period of the country as a whole or its most endangered cities and areas and banning or restricting the entry of foreign citizens into the country, resulted in a huge blow to the tourism sector, tourist destinations and tourism economy (Fotiadis et al., 2021; Radić et al., 2021). It should be emphasized that the states on the one hand made efforts to support tourism, but also that tourism is often characterized by governments during the pandemic as a potentially risky activity. Residents are urged not to travel abroad. Also, in many countries there were different entry conditions for foreign and domestic citizens. In the academic literature, the issue of interdependence between international tourism and COVID-19 cases has been addressed by Farzanegan et al. (2020). Using regression analysis, they confirmed that countries with developed international tourism and a higher number of foreign tourist arrivals are more prone to cases of the COVID-19. Restrictions imposed by governments around the world are one of the causes of the decline in tourism, but other equally important causes are the tourists themselves. Concerned about their safety and security, with the spread of news about the Covid-19 pandemic, travellers often decided to cancel or delay the trips immediately and showed a high degree of sensitivity to the effects of this external shock (Uğur & Akbıyık, 2020). Certain authors emphasize that the pandemic has changed, not only behaviour, but also the psyche of tourists and that it will likely settle on a different, i.e. new equilibrium in the post-crisis period (Kock, 2020; Perčić & Spasić, 2021). This new balance will most likely be characterized by an increased level of fear, concern and carefulness of tourists.

In the literature, in addition to analysing the impact of the pandemic on consumer behaviour, indicators of tourism development and tourism enterprises, with special emphasis on the sensitivity of the hospitality and air travel industry, special attention is paid to the fact that the new circumstances represent a challenge, but also a chance for significant changes in tourism and the establishment of a certain new, more desirable paradigm of tourism development. The success of modern tourism development has been measured and expressed by the growing number of tourists for decades. Intense growth has led to over-tourism, and the Covid-19 pandemic is an opportunity to critically rethink this way of looking at success. The massiveness of global tourism carries a number of interrelated risks and increases the negative contribution of the tourism sector to climate change. The current pandemic is an opportunity for collective learning how to transform tourism into a sustainable form and to rethink the model of tourism growth (Gössling et al., 2020; Payne et al., 2021). Sharma et al. (2021) state that this challenge may be an opportunity for long-discussed forms of tourism, but which do not yet have the position they deserve, such as local tourism and sustainable tourism. The current situation is seen as an opportunity for awakening and desirable transformations in tourism, which will become more sustainable, inclusive and in which the needs and interests of all stakeholders will have equal importance and attention (Cheer, 2020). The changes that are taking place point to the need to re-respect the needs of host communities in the survival and development strategy of tourism (Lapointe, 2020). In this context, it can be concluded that we are at a crossroads which is a perfect opportunity to choose the path that the future development of tourism will take by taking advantage of favourable environmental and other impacts brought by the Covid-19 pandemic (Ioannides & Gyimóthy, 2020; Nagaj & Žuromskaitė, 2021). A

more balanced and sustainable tourism development is currently seen as an option with no alternative.

The question that can be asked is whether the cost of potential greater environmental sustainability will be paid by the economic importance and role of tourism. Also, residents of tourist destinations themselves have shown a willingness to sacrifice the economic well-being in order to avoid the risks posed by the Covid-19 pandemic, i.e. potential social costs. (Qiu et al., 2020). The revenues generated by the tourism industry are seriously threatened by the Covid-19 pandemic. Polyzos et al. (2020), predicting the impact of the current pandemic on tourist arrivals, emphasize that they will not so easily return to previous trend values, which can cause a number of devastating economic effects. The problems faced by the enterprises of the tourism industry due to the reduction and cancellation of travels in the past two years have led and will continue to lead to a reduction in the number of employees in the future as one of the ways of cost cutting. The other side of the problem is the fact that tourism is a labour-intensive activity and that many workers have direct contact with tourists, which accelerates the transmission of the virus (Volkman et al., 2021).

As tourism is a significant generator of GDP and employment in many countries, some authors have focused their research on the impact of the Covid-19 pandemic on the economic effects of tourism. Zhang et al. (2021) use a combination of econometric and qualitative methodology to predict the recovery of tourist demand and evaluate the economic effects of the COVID-19 pandemic on the tourism industry. Salehnia et al. (2020), examining the impact of the Covid-19 pandemic on the tourism industry of European countries, conclude that the impact is much more acute than expected, and that countries, especially those in which tourism generated high incomes, must seek solutions to compensate tourism industry losses. In the European Union, either at the supranational level or at the national level, i.e. at the level of individual member states, a number of tourism policy measures have been implemented which were expected to enable the recovery of tourism. These measures were of a financial nature, through various types of assistance to companies in the field of tourism, but also measures aimed at ensuring a higher level of safety and security of tourists and health protection. A joint action and recovery plan at the EU level is unlikely, due to the fact that tourism is not equally important for the all EU member states (Bera et al., 2020).

In the existing literature, there are attempts to compare the impact of the Covid-19 pandemic on the economic effects of tourism between individual countries or groups of countries. Investigating the effects of Covid-19 in Central European countries, Romisch (2020) states that economic effects vary by country, but that Italy, as the first country affected by the pandemic in Europe, and Croatia, as the country that suffered a sharp decline in tourism, experienced the greatest negative economic consequences in 2020. The author estimates that the intensity of the negative impact of the decline in tourism on the countries of the region will depend on the importance of tourism as a source of income and employment. Xu (2021) is researching the impact of the Covid-19 pandemic on the international tourism of Northern and Southern European countries. The author estimates that the impact of the crisis on tourism is worse in the North than in the Southern European countries. As one of the arguments for such a situation, he cites the fact that in countries in which economic development is more dependent on tourism, greater efforts are being made to stabilize the effect of external shocks on tourism. This is in contradiction with the conclusions reached by Barkas et al. (2020). Namely, they state that the economic contributions of tourism, in terms

of both output and employment, are not significantly correlated with the measures that countries are taking to respond to the crisis. The governments of many countries have prioritized the preservation of employee income and in this regard have given priority to financial support to companies to retain their employees, preserve their salaries or provide retraining of workers in tourism, regardless of the level of tourism contribution to key macroeconomic aggregates. Given the unprecedented decline in the number of tourist arrivals at the global level, there is a certain degree of persistence in the movement of both indicators, the contribution of tourism to GDP and the contribution of tourism to employment, but the indicators are much lower than before the pandemics (Payne et al., 2021).

### 3. METHODOLOGICAL FRAMEWORK OF RESEARCH

The methodological basis of the research is cross-country comparison and cluster analysis. The cross-country comparison is made based on data on the economic effects of tourism in CESEE countries. Cluster analysis as a set of multivariate statistical analysis methods is widely used in tourism research (Brida et al., 2020; Hrubcova et al., 2016; Roman et al., 2020) and in this paper it is used as a quantitative method of classifying CESEE countries according to the intensity of the impact of the Covid-19 pandemic on the economic effects of tourism.

The economic effects of tourism are measured by the contribution of tourism to GDP and employment as the basic macroeconomic aggregates. The information base of the research consists of data of the World Tourism and Travel Council (WTTC). The classification of countries into Central, Eastern, and Southeastern Europe countries is performed according to the methodology of the International Monetary Fund (IMF, 2016).

In accordance with the defined subject and the aim of the research, the paper starts from the following hypotheses:

H1: Central, Eastern, and Southeastern European countries (CESEE) are not homogeneous in terms of the negative impact of the Covid-19 pandemic on the economic effects of tourism.

H2: The negative impact of the Covid-19 pandemic is greater in CESEE countries in which the contribution of tourism to basic macroeconomic aggregates is higher.

The presentation of research results and their discussion are divided into two segments. First, the information base of the research is presented, with cross-country comparisons performed according to the analysed indicators (contribution of tourism to GDP and contribution of tourism to employment). The main goal of this part of the analysis is to identify CESEE countries in which tourism in regular circumstances is of relatively great economic importance. After that, the results of the cluster analysis are presented in order to determine the homogeneity, i.e. heterogeneity of CESEE countries according to the intensity of the negative effects of the Covid-18 pandemic on the economic effects of tourism.

## 4. RESEARCH RESULTS AND DISCUSSIONS

### 4.1. Cross-country comparison

Table 1 shows data on the contribution of tourism to GDP and employment in CESEE countries in the year before the crisis (2019) and the first year of the crisis (2020), as well as the percentage reduction of tourism contribution to these macroeconomic aggregates

2020 compared to 2019. Also, the average values of tourism share in GDP and employment for the observed group of countries are given, primarily with the aim of identifying countries in which tourism is of relatively greater economic importance.

**Table 1** The contribution of tourism to GDP and employment in CESEE countries (2019 and 2020)

Country	Contribution to GDP			Contribution to employment		
	2019 (% of total GDP)	2020 (%)	20/19 (%)	2019 (% of total employment)	2020 (%)	20/19 (%)
Albania	20.5	10.6	-51.6	21.3	17.5	-20.2
Belarus	6.1	2.8	-54.6	5.9	4.6	-21.8
Bosnia and Herzegovina	9.8	3.5	-66.1	10.5	8.4	-21.2
Bulgaria	10.7	4.8	-57.4	10.6	9.5	-13.3
Croatia	24.3	10.2	-61.9	22.2	19.0	-15.6
Czech Republic	6.2	3.9	-40.0	8.2	7.5	-9.6
Estonia	11.8	5.6	-53.5	11.3	11.4	-2.3
Hungary	7.8	3.8	-54.4	9.2	8.7	-6.7
Latvia	7.7	4.0	-50.4	8.3	4.6	-11.1
Lithuania	6.0	2.7	-55.2	4.8	3.9	-20.3
Moldova	6.6	3.1	-55.7	11.4	10.0	-17.6
Montenegro	30.9	8.8	-75.0	31.9	27.3	-20.3
North Macedonia	6.6	3.3	-53.0	6.8	5.7	-17.7
Poland	4.7	2.2	-54.1	5.0	4.8	-4.6
Romania	6.1	2.9	-55.5	6.8	6.7	-2.8
Russia	4.9	2.7	-47.0	5.6	5.4	-5.1
Serbia	5.9	2.8	-54.0	6.3	5.0	-19.3
Slovak Republic	6.4	3.2	-53.0	6.3	5.9	-8.9
Slovenia	10.5	6.5	-42.3	11.0	10.6	-4.7
Turkey	11.0	5.0	-54.2	9.3	8.1	-16.3
Ukraine	6.3	3.4	-44.2	6.9	6.3	-11.9
Average	10.3	4.5	-	10.4	9.1	-

Note: ■ Country with an indicator value that is above the group average.

Source: Authors based on WTTC (2021)

If the economic effects of tourism in CESEE countries in 2019 are observed, it can be concluded that countries in which tourism is relatively important for their economic development are the following: Albania, Bulgaria, Croatia, Estonia, Montenegro, Slovenia and Turkey. In these countries, the share of tourism in GDP was higher than the average for the analysed group as a whole. At the same time, Montenegro is the country with the largest share of tourism in GDP in 2019. The mentioned countries are also the countries that recorded a percentage share of tourism in GDP higher than the average for the CESEE group of countries as a whole in 2020. When it comes to the importance of tourism as a generator of jobs, i.e. the driver of employment, the countries in which this importance can be assessed relatively large according to data for 2019 are: Albania, Slovenia, Bulgaria, Estonia, Moldova, Montenegro and Bosnia and Herzegovina. With the exception of Bosnia and Herzegovina, these are also countries that record the share of tourism in employment higher than the average share for the group as a whole in 2020.

The leader in the contribution of tourism to employment is Montenegro, with the highest percentage in both years.

If the average values of tourism share in the basic macroeconomic indicators of the analysed group of countries are observed, another conclusion can be reached. Namely, it is evident that the Covid-19 pandemic had a much more negative impact on the share of tourism in GDP than a negative impact on employment in tourism during 2020. This may be a consequence of the intensive efforts of governments to maintain employment as much as possible in the country, which have been reflected in various measures and support programs. This is in line with the conclusions reached by Barkas et al. (2020), which state that many countries have made as a priority in the fight against the Covid-19 pandemic to preserve employment, in general, and, above all, in the tourism sector as the most affected part of the economy.

#### 4.2. Results of cluster analysis

Cluster analysis is used for the purpose of grouping CESEE countries into three separate clusters, where the criteria for the classification of countries are the percentage reduction in the contribution of tourism to GDP and the percentage reduction in the contribution of tourism to employment in 2020 compared to 2019. The K-Means Cluster analysis is applied and the Final Cluster Centres are shown in table 2.

**Table 2** Final Cluster Centres

Variables	Cluster		
	1	2	3
Contribution to GDP [20/19 (%)]	-55.29	-49.44	-70.55
Contribution to Employment [20/19 (%)]	-18.01	-6.77	-20.75

*Source:* Author’s research

Based on the data shown in table 2, cluster 3 can be identified as the cluster with the worst performance, i.e. the cluster that includes countries with the most intensive reduction in tourism contribution to GDP and employment in 2020 compared to 2019. It is followed by cluster 1, while cluster 2 can be marked as a cluster with the best performance, i.e. this cluster includes countries with the lowest percentage reduction in the contribution of tourism to GDP and employment.

In order to test the statistical significance of the difference between clusters according to the observed variables, the Post Hoc Test is applied in the research. The test results are shown in Table 3. These results indicate that there is a statistically significant difference between the selected clusters according to the analysed indicators, i.e. according to the percentage reduction of tourism contribution to GDP and the percentage reduction of tourism contribution to employment 2020 compared to 2019 in almost all observed comparative combinations. In this way, the first initial assumption of the research was confirmed. Specifically, cluster 2, which was designated as cluster with the best performance or the cluster that includes countries in which the negative effects of the Covid-19 pandemic on the economic effects of tourism are least pronounced, is statistically significantly different from cluster 1 and cluster 3 according to both observed indicators (contribution of tourism to GDP and contribution of tourism to employment).

**Table 3** Multiple Comparisons (Post Hoc Test)

Variables	(I) Cluster	(J) Cluster	Mean Difference (I-J)	Std. Error	Sig.
Contribution to GDP [20/19 (%)]	1.00	2.00	-5.84889 *	2.15710	0.036
		3.00	15.26111 *	3.67008	0.002
	2.00	1.00	5.84889 *	2.15710	0.036
		3.00	21.11000 *	3.63656	0.000
	3.00	1.00	-15.26111 *	3.67008	0.002
	2.00	-21.11000 *	3.63656	0.000	
Contribution to Employment [20/19 (%)]	1.00	2.00	-11.24111 *	1.38178	0.000
		3.00	2.73889	2.35095	0.488
	2.00	1.00	11.24111 *	1.38178	0.000
		3.00	13.98000 *	2.32948	0.000
	3.00	1.00	-2.73889	2.35095	0.488
	2.00	-13.98000 *	2.32948	0.000	

Note: \*The mean difference is significant at the 0.05 level

Source: Author's research

There is a statistically significant difference between cluster 1 and cluster 3 when it comes to the percentage reduction in the contribution of tourism to GDP. On the other hand, a statistically significant difference is not observed only in the comparison of cluster 1 and cluster 3 when it comes to the percentage reduction of the contribution of tourism to employment. In other words, there are no significant oscillations of the percentage reduction in the contribution of tourism to employment between countries classified in cluster 3, as the cluster with the most intense negative impact of the Covid-19 pandemic on the economic effects of tourism, and countries classified in cluster 2, with a relatively moderate negative impact of the Covid-19 pandemic on the economic effects of tourism. The differentiation between the countries of the first and third clusters was primarily based on the difference in the negative impacts of the Covid-19 pandemic on the contribution of tourism to GDP. The number of countries in each cluster, as well as their membership to defined clusters, is shown in table 4.

**Table 4** Number of cases in each cluster and cluster membership

Cluster	Number of cases	Cluster membership
1	9	Albania, Belarus, Bulgaria, Croatia, Lithuania, Moldova, North Macedonia, Serbia, Turkey
2	10	Czech Republic, Estonia, Hungary, Latvia, Poland, Romania, Russia, Slovak Republic, Slovenia, Ukraine
3	2	Bosnia and Herzegovina, Montenegro

Source: Author's research

Taking into account the intensity of the impact of the Covid-19 pandemic on the economic effects of tourism in CESEE countries, i.e. the intensity of reducing the contribution of tourism to GDP and employment in 2020 compared to 2019, the following cluster structure of CESEE countries is identified:

- Cluster 1 – Albania, Belarus, Bulgaria, Croatia, Lithuania, Moldova, North Macedonia, Serbia, Turkey. This cluster includes countries in which the negative effects of the crisis on the economic effects of tourism are more moderate compared to CESEE countries belonging to cluster 3, and more intense than in CESEE

countries belonging to cluster 2. If the results of cross-country comparison are taken into account Table 1) four out of nine countries in this cluster are identified in the previous segment of the analysis as countries that in regular circumstances had a contribution of tourism to basic macroeconomic aggregates higher than the average of the CESEE group of countries (Albania, Bulgaria, Croatia, Turkey).

- Cluster 2 – Czech Republic, Estonia, Hungary, Latvia, Poland, Romania, Russia, Slovak Republic, Slovenia, Ukraine. This cluster includes countries in which the negative effects of the crisis on the economic effects of tourism were least pronounced in 2020 in the observed group of countries. The results of the cross-country comparison (Table 1) show that one out of ten countries in this cluster is marked as a country that had a share of tourism in GDP and employment in the year before the crisis higher than the CESEE average (Estonia).
- Cluster 3 – Bosnia and Herzegovina, Montenegro. This cluster includes the countries with the most pronounced negative impact of the Covid-19 pandemic on the economic effects of tourism, i.e. the countries that recorded the largest percentage reduction in the share of tourism in GDP and employment. While Montenegro is undoubtedly a country that, compared to other countries in the analysed group, based its development on tourism in the period before the crisis, Bosnia and Herzegovina recorded a share of tourism in GDP lower than the average of the analysed group of countries and tourism in employment more than the average of the analysed group of countries in 2019.

Previous results of cross-country comparisons have made it possible to single out countries in which the importance of tourism for the economy in regular circumstances is relatively large. Comparing these results and the results shown in Table 4, it can be concluded that almost all of these countries (except Estonia) are in cluster 1 or cluster 3 identified as clusters with a greater impact of the Covid-19 pandemic on the economic effects of tourism, which confirms the second starting assumption of the research. This is in line with the findings of the research of the authors Romisch (2020) and Škare et al. (2021) and which indicate that the level of negative effects depends on the importance that the tourism industry has for the national economy of a particular country.

## 5. CONCLUSION

The tourism sector is one of those most affected by the Covid-19 pandemic. The reason for this is the specificity of the sector itself, but also the specificity of the still current health crisis. Numerous measures aimed at the prevention of the pandemic had a direct negative impact on tourism. On the other hand, the tourism sector was considered one of the fastest growing sectors of the global economy in the period before the pandemic, but also its driving force, as a sector with a significant contribution to global GDP and jobs. In this way, the challenges facing the tourism sector due to the Covid-19 pandemic are also part of the challenges of the global economy. It is evident that the unprecedented decrease in the number of tourists has resulted in numerous economic constraints, drastic reduction in the level of income generated by the tourism sector and a serious loss of jobs in tourism and related sectors.

The impact of the Covid-19 pandemic on the economic effects of tourism in CESEE countries is analysed in the paper. The contribution of tourism to key macroeconomic

aggregates (GDP and employment) in the countries of the selected group is observed. The results of the research are divided into two segments, the findings of which complement each other. Namely, the cross-country comparison of selected countries made it possible to identify countries whose economic development and employment in regular circumstances rely relatively heavily on tourism. The second part of the research results, i.e. the results of the applied cluster analysis, indicate that CESEE countries can be divided into three clusters among which there is a statistically significant difference when it comes to the intensity of declining tourism contributions to GDP and employment under the influence of the Covid-19 pandemic. In this way, it was concluded that CESEE countries are not homogeneous in terms of the negative impact of the Covid-19 pandemic on the economic effects of tourism. Although the impact of the Covid-19 pandemic on tourism and its economic effects in all countries around the world can be assessed as unprecedented negative, there are still some differences in the intensity of this impact in specific countries. Concluding from the findings of cross-country comparison and cluster analysis, it can further be argued that countries in which the economic importance of tourism is greater are more affected by the negative impact of the Covid-19 pandemic.

In theoretical sense, the paper is an attempt to contribute to the academic debate on the negative impacts of the crisis on tourism and its economic effects. In practical terms, the paper may have implications for the creators of post-crisis tourism recovery strategies at the national level, pointing to those countries where the negative impacts of the pandemic on the analysed indicators were relatively lower. The practical implications would be broader if the research findings included a comprehensive analysis of the applied measures in specific countries, both epidemiological which affected the tourism sector and measures to support this sector, which can be considered as limitation of this research. It is generally possible to look for one of the causes of the greater or lesser impact of the crisis on the economic effects of tourism in specific countries in these measures and in the tourism policy of individual countries. The combination of a qualitative approach to this issue with the quantitative research applied in this paper is a recommendation for future research on the impact of the Covid-19 pandemic on the economic effects of tourism in selected countries or other groups of countries.

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## **UTICAJ PANDEMIJE COVID-19 NA EKONOMSKE EFEKTE TURIZMA U ZEMLJAMA CENTRALNE, ISTOČNE I JUGOISTOČNE EVROPE (CESEE)**

*Pandemija Covid-19 donela je brojne izazove i ograničenja globalno. Zemlje širom sveta suočavaju se sa negativnim socio-ekonomskim posledicama globalne zdravstvene krize. Kako je sektor turizma jedan od najznačajnijih sektora globalne ekonomije i ujedno jedan od sektora koji je najteže pogođen krizom, konsekvence negativnog uticaja ove krize u turizmu veoma su široke. Predmet ovog rada jeste istraživanje uticaja pandemije Covid-19 na ekonomske efekte turizma u zemljama Centralne, Istočne i Jugoistočne Evrope (Central, Eastern and Southeastern Europe – CESEE). Cilj rada je da se kroz analizu smanjenja doprinosa turizma ključnim makroekonomskim indikatorima pod uticajem pandemije Covid-19 sagleda homogenost, odnosno heterogenost analiziranih zemalja po pitanju negativnih uticaja krize na ekonomske efekte turizma. Primenom metoda komparacije zemalja i klaster analize zaključeno je da CESEE zemlje nisu homogene u ovom smislu, kao i da su zemlje u kojima je značaj turizma za nacionalnu ekonomiju veći ozbiljnije pogođene krizom.*

Ključne reči: turizam, ekonomski efekti, Covid-19

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