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Marijan Cingula, Petar Misevic, Abdelhamid Nedzhad

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CONTENTS

ADAPTATION OF THE MAIN ACTIONS IN THE NATIONAL EMPLOYMENT ACTION PLAN TO COVID-19

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ABSTRACT
This paper is the part of an extensive study which analyzes and examines the processes on the Bulgarian market that unfold in the emergency situation resulting from the COVID-19 pandemics. The focus is on the state of the labour market before the pandemic crisis and the subsequent changes in the current national employment plan in view of the challenges of the situation caused by COVID-19. It proposes measures and supports actions for restructuring the financial resource for adaptation of the plan to the new challenge to the labour market in Bulgaria.
Keywords: *Labour market, COVID-19, Social system, Social policies*

1. INTRODUCTION

The current crisis situation resulting from the spread of a viral infection caused by COVID-19 is another test for the implemented unemployment and employment social policies. Entire sectors of the economy are in downtime; other are in a situation to function at minimal rates. This suggests active processes of pressure on the existing social system. To what extent it is able to deal with these critical processes and to what extent they will take place remains to be seen, but it is obvious that the negative impact is already a fact and it will increase. Despite the fact that the Bulgarian economy has been growing in recent years, the progress is quite modest and insignificant to compensate for the impending situation. The European active social policy on the labour market is based on the project principle. This process requires local communities to prepare and submit projects to be funded under the relevant operational programs. The approach opens opportunities for the implementation and financing of projects that have proved to be necessary for local communities and will improve the social environment (Terziev, 2020).

2. EMPLOYMENT AND UNEMPLOYMENT SITUATION IN 2019 IN BULGARIA

The labour market by the end of 2019 was characterised by economic growth and positive trends. In the first nine months of 2019, the number of employed increased while the number unemployed and economically inactive people decreased on an annual basis. The number of economically active population aged 15-64 was going up despite the unfavourable demographic processes. It reached 3 282.4 thousand, 1% up compared to the first nine months of 2018. As a result of the growth in workforce, the economic activity rate for the population aged 15-64 in the first nine months of 2019 increased on annual basis by 1.7 percentage points, reaching

73.3%. In the first nine months of 2019, the number of employed people aged 15–64 increased to 3 140.5 thousand with a higher growth rate (by 2.2%) compared to the first nine months of 2018. The number of employed increased in all age groups, as a larger increase is observed in the groups of 45-54 and 55-64 year olds. The employment rate for the population aged 15–64 also increased. In the first nine months of 2019, 70.1% of the people aged 15–64 were employed, 2.4 percentage points up the same period of the previous year. The employment rate for the age group 20-64 was 75% on average for the three quarters of 2019 and was close to the national target of 76% for 2020. Compared to the first nine months of 2018, the value of the indicator is higher by 2.6 percentage points. Employment increased in all 18 economic activities, except for those employed in wholesale and retail trade; repair of motor vehicles and motorcycles, where it decreased by 0.2% (1.3 thousand) compared to the first nine months of 2018. More significant growth in employment during this period was reported in economic activities "Accommodation and food service activities" - by 16.3 thousand, "Manufacturing" - by 10.5 thousand, "Administrative and support service activities" by 8.8 thousand, "Professional scientific and technical activities" by 5.9 thousand and "Information and telecommunication" by 5.6 thousand. In all regions of Bulgaria there is an increase in employment except for the North-West region, where the number of employees aged 15–64 decreased by 1.6% (4.4 thousand) compared to the first nine months of 2018. In the other five regions, employment increased, with the largest increase reported in the South-West, South-Central and North-Central regions. The employment rate for the population aged 15–64 was higher than the national average in the South-West region (75.9%), and in the South-East it was almost as high as the national average (70%). The lowest employment rate was in the North-West region (59.5%). In the other three regions the value of the indicator is of close values, respectively 66.8% in the North-East, 69.2% in the South-Central and 69.5% in the North-Central. Unemployment had been decreasing steadily since 2014. The downward trend continued in the first nine months of 2019. On average for the three quarters of 2019 144.2 thousand people were unemployed. Compared to the same period in 2018, this is a decrease of 19.8%. The unemployment rate averaged 4.3% for the first nine months of 2019, decreasing by 1.1 percentage points compared to the same period of the previous year. Since 2014 the unemployment rate for Bulgaria had been lower than the EU-28 average. According to Eurostat data, this trend continued in the first nine months of 2019, with the average value of the indicator for Bulgaria being 4.3% and 6.4% for the EU-28. A decrease in the number of unemployed was reported for all age groups. The number of unemployed young people aged 15-24 continued to decline both in absolute terms and as a share of the workforce. Compared to the first nine months of 2018 this number decreased by 37.2% to 13 thousand, the youth unemployment rate falling by 4.5 percentage points to 8.9%. Since 2015, the level of youth unemployment (15-24 years) for Bulgaria had been lower than the EU-28 average. According to Eurostat data, this trend continued in the first nine months of 2019 - for Bulgaria the value of the indicator on average for the first nine months was 9.4% compared to 14.5% on average for the EU-28. The number of young people not in employment, education and training aged 15-24 had been decreasing steadily since 2014. According to the most recent Eurostat data in 2018 it was 15% for Bulgaria, decreasing on an annual basis by 0.3 percentage points at an EU-28 average of 10.5%. For the period of effect of the National Plan for implementation of the European Youth Guarantee 2014–2020, the number of young people aged 15–24 who were not employed and were not involved in education and training activities decreased by 36.2% - from 149 thousand in 2014 to 95 thousand in 2018 according to Eurostat data. The downward trend of the long-term unemployed, observed since 2014, continued. In the first nine months of 2019 compared to the same period of the previous year their number decreased by 19.4% to 83.5 thousand, and the long-term unemployment rate decreased by 0.6 points to 2.5%. Along with the reduction of unemployment, the economically inactive population also decreased.

The economically inactive persons aged 15–64 were 1,195.7 thousand, 7.1% down the first nine months of 2018. The number of discouraged people aged 15–64 continued to decrease and in the first nine months of 2019 they were 62.1 thousand. On an annual basis there was a significant decrease in their number - by 26.9%. According to the data of the National Employment Agency, the number of unemployed registered with the employment services continued to decrease in the first nine months of 2019 compared to the same period of the previous year, as their average monthly number reached 184,053 people. There was a slowdown in the rate of reduction of the number of unemployed. The decrease on an annual basis in the first nine months of 2019 was 10.1%, compared to 14.7% in the first nine months of 2018 (2020a-d). The average monthly unemployment rate reached 5.6% in the period January-September 2019. Compared to the same period of the previous year, a decrease of 0.6 percentage points was reported. Pursuant to the Employment Promotion Act, employed persons, pensioners and students can be registered as job seekers in employment offices. In the first nine months of 2019, an average of 2,429 employees, 956 students and 2,057 retirees exercised this right. The number of persons in all three groups had increased compared to the first nine months of 2018, which was a result of the targeted actions of the Employment Agency to attract and activate labour resources to overcome the shortage of personnel in some industries or regions. The number of students without qualifications - 71.7% prevailed, which was a result from the measures for promoting the employment of young people, including the ones that had dropped out of the education system. In the groups of the employed and retired the specialists predominated - 63.8% and 52.9% respectively. The dynamics of the registered unemployed in the first nine months of 2019 was characterized by an increase in the inflow and a decrease in the outflow of unemployed compared to the same period of the previous year.

3. EXPECTED DEVELOPMENT OF THE LABOUR MARKET IN 2020 PRIOR TO THE CRISIS

The strengths of the labour market in 2019 were stable economic environment, fiscal sustainability, increasing employment, decreasing unemployment, bigger spending on education and training, low inflation, the implementation of programs and measures of active employment policy, digitalization, the built capacity and accumulated experience of the competent institutions and the sustainable regulatory framework, the support of the European institutions and funds (Terziev, 2020). Though declining in strength, there still remained a number of weaknesses in the labour market in 2019. Such were the shortage of qualified personnel, especially with secondary education, the mismatch between the employers' demand of employees with certain skills and the workforce available, the high share of unemployed of no qualifications and low level of education, big regional differences in employment and pay, short-term employment (of casual, seasonal, often informal nature), persistent unemployment among disadvantaged groups, despite its stable decline, the large number of inactive people. Undeclared labour continued to disrupt the functioning of the labour market, though restricted as a result of the joint efforts of the institutions and the social partners. In general, low education, skills and socio-economic inequalities were the major obstacles to improving human capital, with potential implications for skills levels and growth potential. The opportunities offered by the new technologies and the digital economy for high-quality employment were insufficiently used. Emigration had a negative effect on labour supply, and differences in wage levels compared to more developed member states remained a factor for its future existence. The threads to the labour market in 2020 - some of them were of long-term nature such as demographic trends, structural disparities in labour supply and demand, skills inadequacy, especially in the digital sphere. Other threats nascent in 2019 might be more pronounced in 2020, such as deteriorating economic conditions and rising risks to economic growth, significant indebtedness of non-financial corporations that could hamper medium-term growth

prospects, the restriction of exports and orders, the increasing pressure on wages due to shortages of labour and the limited opening of new jobs in certain sectors, the lack of funding due to the exhaustion of European Structural Funds at the end of the programming period. The private sector will be cautious about creating new jobs under pressure to raise wages. Industrial relations are slowly adapting to a labour market that is becoming increasingly diverse, globalized and unconventional. Estimates of the Bulgarian National Bank for the cyclical position of the economy show that at the beginning of the year the economic activity in the country was above its potential level. These assessments give signals that in terms of supply part of the resources in the economy are still loaded above their optimal level, which is in line with the observed long-term trend towards a significant decrease in unemployment and maintaining a high capacity utilization rate.

4. LABOUR MARKET OPPORTUNITIES IN 2020

Providing for the necessary funds from the state budget of the Republic of Bulgaria for training of employed and unemployed persons for the acquisition of the skills required by employers, including advanced training, search for solutions to problems through:

- changes in the admission plan in education;
- for the unemployed – advanced training and training at the request of employers;
- training for employees;
- import of workforce from third countries;
- providing for more attractive conditions for payment and work;
- utilization of the untapped potential of human resources by activating the people who do not work and do not seek a job;
- support for reconciling family and professional life, flexible employment, part-time employment, maintaining the employment of people of retirement age, etc.;
- conducting information campaigns among Bulgarians living abroad about the opportunities for professional realization in Bulgaria, encouraging the return of highly qualified personnel after training or work in other countries;
- providing for employment, including at municipalities, to reduce poverty in small settlements and rural areas, ensuring faster transitions from inactivity to employment, including with the instruments of social assistance;
- removing barriers to active job search caused by poverty, deteriorating health and poor living conditions;
- more efficient allocation and use of human resources by redirecting to better and more productive jobs both by providing for high-tech equipment and new technologies, and by improving skills and motivation for work, training of managers and other. In the short term, labour market demand can be met by supporting the geographical and occupational mobility of the workforce; however, in the long run, the response to the declining labour force is to increase labour productivity;
- an analysis of the processes and development of measures, following the example of the countries that have already gained experience in the application of the new technologies, including for the where jobs are at risk due to automation and digitalisation, as well as areas and occupations where more jobs will be opened;
- development of the legislation for regulating the changes in the labour relations, as well as providing for social security for the workers in the new forms of work - in the information and communication sectors, work with vouchers, teleworking, etc.

5. PRIORITY ACTION AREAS IN 2020

The National Employment Action Plan 2020 will include activities to stabilize the functioning of the labour market to prepare it both for accelerating economic development and to face the external and internal economic challenges. The aim is to develop human capital to meet the needs of the economy and to be able to adapt quickly to changes in labour demand caused by both new technologies and structural changes. The increase in workforce supply is to be achieved through continuous work on the labour potential - by activating the people who do not have and seek a job and advanced training of the workforce, motivation and professional orientation. The plan will continue to contribute to the realization of the goals and commitments of the country in implementation of the Europe 2020 EU Strategy, the European Pillar of Social Rights, the measures included in the National Reform Program 2020, the Council Recommendation of 05.06.2019 (described below), the Convergence Program, the Government Program 2021, the tasks of the Updated Employment Strategy 2013-2020, the National Plan for the Implementation of the European Youth Guarantee 2014-2020, the National Strategy for Lifelong Learning 2014–2020, the National Strategy for People with Disabilities 2016–2020, the Bulgaria 2020 National Development Program, etc. At the same time, the NEAP 2020 will provide for reserves for financing emergency measures in case of negative phenomena through redistribution of funds. Bulgaria is taking measures to implement the Council Recommendation of 9 July 2019 on the Bulgaria's National Reform Program for 2019 which includes opinion of the Council on Bulgaria's Convergence Program for 2019 (2019 / C 301/02), published in the Official Journal of the EU on 5 September 2019 under number C 301/02. The Recommendation states that:

- The labour market has improved, but challenges remain. Employment has reached its highest level since Bulgaria's accession to the EU, and unemployment rate is below the EU average. Despite these positive changes, some groups of the population, such as low-skilled workers, young people, Roma and people with disabilities, continue to face difficulties in finding a job. Specific measures are being implemented to support the long-term unemployed, who represent 3% of the active population in 2018. A combination of effective and sustained outreach measures, active employment policies and integrated social and employment services could improve the employability of disadvantaged groups and their chances of finding a job.
- Bulgaria’s increasing skills shortages warrant significant investments. Young people might be more employable if the quality and effectiveness of traineeships and apprenticeships were improved. Moreover, the participation in upskilling and reskilling measures among the adult population is very low. Despite measures launched to encourage the development of digital skills, Bulgaria’s level of basic digital skills (29 % of individuals possess basic digital skills against a Union average of 57 %) remains among the lowest in the Union.
- Despite the ratification of the International Labour Organization’s Convention concerning Minimum Wage Fixing and of several rounds of negotiations during 2018, employers and trade unions still have diverging views on the criteria to be applied when setting the minimum wage. There is scope for greater consensus about an objective and transparent wage-setting mechanism. Meanwhile, although the involvement of the social partners in the design and implementation of policies and reforms seems to have increased, continuous support for a reinforced social dialogue remains necessary.
- Educational outcomes are still low and continue to be strongly influenced by parents’ socioeconomic status. This reflects challenges relating to the quality and inclusiveness of the education and training system. Bulgaria invests insufficiently in education, particularly in pre-primary and primary education, two areas that are instrumental to creating equal opportunities from an early age. Participation in quality early childhood education and care is low, in particular for Roma and children from other disadvantaged groups.

The rate of early school leaving is still high, with negative consequences for future employability and labour market outcomes. The labour market relevance of vocational education and training and the availability of dual vocational education and training remain insufficient. While some measures are underway, further efforts are needed to ensure that the skill set of higher education graduates can address short- and mid-term skills shortages in a consistent way.

- Bulgaria is still facing high income inequality and risk of poverty or social exclusion. Though decreasing, the rate of poverty or social exclusion in 2018 was 32,8 %, still well above the Union average. The social security system does not cover all people in employment and the social protection system is insufficient to tackle the significant social issues. This reflects the low level of social spending, the uneven availability of social services across the territory of the country and the limited redistributive effects of the taxation system. In 2018, the income of the richest 20 % of population was 7.7 times higher than that of the poorest 20 %, still one of the highest in the EU. Despite some measures, the adequacy and coverage of the minimum income remain limited and an objective mechanism for regularly updating it is still missing. Social services are hampered by low quality and lack of an integrated approach towards active inclusion. Disparities in access to social services, healthcare and long-term care persist. This undermines their ability to provide comprehensive support for the most vulnerable, such as the Roma, children, the elderly, persons with disabilities and people living in rural areas. Part of the population has difficulty getting access to affordable housing. More efforts are therefore needed to foster active inclusion, promote the socioeconomic integration of vulnerable groups including the Roma, enhance access to quality services and address material deprivation.

It is recommended Bulgaria to take the following actions in 2019 and 2020:

- Strengthen employability by reinforcing skills, including digital skills.
- Improve the quality, labour market relevance, and inclusiveness of education and training, in particular for Roma and other disadvantaged groups.
- Address social inclusion through improved access to integrated employment and social services and more effective minimum income support.
- Improve access to health services, including by reducing out-of-pocket payments and addressing shortages of health professionals.
- The Council's recommendations on skills development pathways, the quality framework for traineeships, the European framework for quality and effective apprenticeships and key competences for lifelong learning will continue to apply.

In view of the above the concept of the National Employment Action Plan 2020 has been defined in the following way:

- "Support for economic growth by creating conditions for providing for the required by employers good quality and quantity of labour, including by activating and increasing the employability of the disadvantaged groups in the labour market with a priority given to the most poorly developed regions."

In this regard, in 2020, as well as in 2019, the priorities in the active labour market policy are the services for jobseekers and inactive people, as well as the training of the labour force. The actions envisaged in the Plan will create conditions for reducing the imbalances on the labour market by improving the combination of labour supply and demand (in terms of quantity and quality) and ensuring fast and quality transitions from unemployment and inactivity to employment through the development of services and cooperation with employers. Improving the qualifications and skills of the unemployed and the employed enables them to achieve, on

equal other terms, higher labour productivity. Assisting the unemployed in their search for jobs, inclusion the most vulnerable groups of unemployed in training and employment ensures social inclusion for these groups, earned income and insurance rights, tax revenues and social security contributions for the state. Funding some part of the staff costs of the companies, especially the small and medium-size enterprises, is in practice a form of support and encouragement for them to create jobs. Support will be granted also for investments in regions with high unemployment rates. The training and employment of disadvantaged groups is a factor which helps some of them escape the poverty trap and implement some of the tasks in the social economy. Conducting media campaigns to raise awareness of the benefits of skills development and encourage participation in various forms of training is a way to attract those who have the biggest need for training - the low-skilled unemployed. In case of deterioration of the international economic environment as a result of failures in international markets, regional conflicts and migration flows from some countries to other and in view of the internal environment following crises and natural disasters, i.e. in a more pessimistic scenario, subsidized employment will be provided under programmes, where the employment will be targeted at other aims as well, such as, for example, fostering security, environmental protection, rehabilitation and improvement of the infrastructure of the settlements, etc. In emergency situations and natural disasters, temporary employment in the regions which experience difficulties will be provided for.

The main objectives and priorities of the national employment policy for 2020 in light of the estimated economic growth laid down in the 2020 State Budget Act are a higher growth rate, stable environment and increase in domestic demand and include (2020a):

- Support the economy by providing one of the main factors for sustainable growth - quality and more productive workforce according to the needs of employers. Reducing imbalances between labour supply and demand and supporting the opening of quality jobs in the real economy to achieve employment-favourable growth. Improving the business environment and maintaining employment in the main sectors of the economy, restricting unregulated employment and undeclared payments. Improving the quality of the workforce in small and medium enterprises. Reducing employment disparities between regions.
- Increasing the participation in the labour market and reducing the number of inactive people of working age by activating and training for the acquisition of knowledge, skills and competencies required by employers.
- Better inclusion and acquisition of skills by the unemployed from the most disadvantaged groups, faster job placement and achieving sustainable employment. Achieving the objectives of the European Youth Guarantee to accelerate the reduction of youth unemployment, especially from the group of the inactive (NEET's). Reducing the number of long-term unemployed and in line with the Council recommendation on this target group.
- Achieving greater efficiency and quality of employment services, implementation of new services, including through systematic cooperation with business, closer interaction with private employment agencies and enterprises to provide temporary work. Fast transitions from one employment to another for job seekers with high qualifications and career opportunities. Achieving a lasting effect in the integration of the most vulnerable groups into the labour market by providing integrated services by the territorial divisions of the Employment Agency and the Social Assistance Agency. Increasing the effect of the programs, projects and measures of the active labour market policy in connection with the recommendations from the conducted net evaluations and improving the financial efficiency of the spent funds.
- Development of interdepartmental interaction and social partnership.

- In the event of sudden deterioration of the economic situation and lower than expected GDP rates as a result of unforeseen external circumstances, such as natural disasters, financial imbalances, etc., to consider the following priority as well:
  - Curbing unemployment through information on job vacancies throughout the country, providing training, promoting internal mobility, inclusion of a number of unemployed in regions with a deteriorating economic environment in temporary employment, providing training and mediation services for a rapid transition to new employment for the dismissed staff from enterprises in difficulty and / or having ceased their activity.

6. ADAPTATION OF THE MAIN ACTIONS IN THE NATIONAL EMPLOYMENT ACTION PLAN TO COVID-19

The National Employment Action Plan 2020 will be including activities in the following primary areas: (2020a):

- Promotion of economic growth, which is favourable for employment, improvement of business environment, development of main economic sectors of favourable impact on employment, including: industry and environment, energy, agriculture, construction; transport; tourism; information and communication technologies; healthcare; trade incl. support for employment in small and medium-sized enterprises..
- Preparation for future changes in labour under the influence of new technologies.
- Improving social dialogue by involving the social partners in the formulation and implementation of employment policies.
- Development of regions.
- Improvement of labour market operation by:
  - Providing for workforce with qualifications and skills that meet the demand of the business and in view of the future needs;
  - Providing for employment for disadvantaged groups on the labour market in programs, projects and measures of the Employment Promotion Act and the Human Resources Development Operational Program; implementation of the Youth Guarantee; improving the services for activation of the unemployed, counselling and vocational guidance to professions and specializations in demand on the labour market for quick job placement and reducing the duration of unemployment; activation of inactive, incl. discouraged people; promoting internal mobility;
  - Curbing unregulated employment and undeclared payments to employees;
  - Income policy and passive labour market policy;
  - Ensuring social security and social inclusion;
  - Free movement of workers within the EU and employment for people from third countries.
- Enhancing the management of employment policies: the National Employment Agency, the General Labour Inspectorate, other institutions.

The implementation of the goals and activities set in the National Employment Action Plan will be significantly hampered in the current new and different in qualitative terms environment. Despite the fact that some employers retain their employees in a way or other which artificially keeps the labour market in a relatively balanced position, the situation will change dramatically in the very short run. For some of the staff from the most affected sectors of the economy, such as tourism, public transport, etc. the dismissal process has begun. This will quickly change the forecasts for increasing employment and maintaining and even reducing unemployment rates. In practice, other vulnerable groups will be formed on the labour market, as a direct consequence of the pandemic situation. This will require a reformulation of the objectives and priorities of action in the National Plan, even a change in its financial framework.

There will be people on the labour market who have the appropriate qualifications and specific competencies, but in the current situation they cannot apply them. The possible actions are in several directions: to support them financially by a respective monetary compensation, with the expectation that the activity in which they were engaged will recover soon enough after the end of the crisis or to orient them to the still available other vacancies that do not correspond to their qualifications and competencies. Both measures would be temporary and would rather prevent them from falling into a difficult social and life situation. There are enough clear signals in the society that small and medium-sized businesses and those that do not have free financial resources face very serious problems. This puts in a different way the formation of new critical groups of people who have lost or will lose their jobs in the near future: a human resource of relatively diverse professions and with different age characteristics, which will be uncomfortable to participate in the labour market with limited supply of jobs. The presence of economic and social imbalances in the respective regions of the country, especially in its North-western part, will create an even more difficult situation. The approaches should be differentiated in two directions - the first - in efforts to maintain existing employment by supporting the enterprises themselves. Various practices and technologies have been applied for the implementation of such activities in Bulgaria with varying degrees of success. A successful practice is to support the people who have little time left until retirement for seniority and old age - a mechanism for paying a certain salary and social security payments on it for a period of up to two years. A similar mechanism could be proposed and implemented for a specific period of time. The question arises in which directions such financial resources should be streamed and how to distribute them as fairly as possible. Undoubtedly, various systems of selection criteria can be applied, such as reduced production volumes, staff reduction compared to previous numbers, as well as those for sectors that are directly affected and unable to operate. Each of the criteria should comprise a certain corrective weight in making the relevant support decision. This is a mechanism that would be easily implemented and will give the fastest result, helping to avoid personnel dismissal during the crisis situation. The question is again whether the market behaviour of the respective business will recover quickly and fully enough after the end of the extraordinary crisis of the COVD-19 pandemic. However, even at present there are companies that have ceased operations and laid off almost their employees - especially those in the sphere of services, which they are not able to render in any other form. This raises the question of what happens with these employees who have specific skills which to apply are necessary to be involved in corresponding activities. If this is not possible, a solution should be sought for this newly formed group of unemployed. Again, there are solutions in at least two directions - one is the passive approach - to financially support them in the short run (using various forms - compensations, social benefits, etc.), the other – to retrain them so that they can work in areas where employment could be provided for them. A large part of this group in recent years have not been active players in the labour market and this is an unusual role for them and at the beginning there will be an adaptation period, i.e. the awareness that they appear to be unemployed persons in a not very dynamic and closed labour market. These are mainly people from small and family businesses who have provided for the sustenance of their families through activities in the production sphere or in the sphere of services (Terziev, 2020e-g; Terziev et al., 2020h). The closure of large enterprises, the activities of which are mainly related to foreign partners, is currently at a standstill. Most of the staff is on paid or unpaid leave, and a positive solution to the crisis situation and the return of all at their workplaces is expected. A negative alternative might also be expected - that this type of production will shrink a lot and the reduction of production activity will be due to the fact that commodity markets will not recover automatically. This will create additional great pressure on the Bulgarian market and the current system will encounter the serious challenge to look for opportunities to solve problems through instruments and measures aimed at achieving sustainable employment.

7. CONCLUSION

Ultimately, it is imperative to quickly consider revising the objectives and the activities envisaged in the National Employment Plan and to provide for additional funding to support the process of overcoming the crisis, as well as to support the functioning of the labour market. Obviously, the parameters projected in the current plan should be revised, which will lead to a negative trend in employment and an increase of unemployment. The current program envisages funds from the state budget that will provide for the employment of almost 13,000 unemployed and the training of 11,824 unemployed persons. This will prove to be very insufficient, given that in the last days of March alone the number of unemployed registered per day was several thousand and this process will continue in the next few months. The projected unemployment rate of 4.1% is likely to increase and will reach far higher levels, probably exceeding the critical levels reported in the period of the financial crisis of 2008.

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STRATEGIC PLANNING AS A PROFITABILITY FACTOR IN SMALL AND MEDIUM ENTERPRISES

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ABSTRACT

Market development is accompanied by the development of strategic management that will continue to develop in the future. In order for companies to be as successful as possible in their business environment, they need a methodological approach to developing a strategic plan. Creating a strategic plan is not a simple process, it is necessary to carefully observe the environment in which the company operates, as well as detailed planning of all factors that play a key role in the strategic planning process. Making a good strategic business plan of a company ends with making quality and effective decisions on which the successful business results of the company will be based. In a global market environment, SMEs want to achieve a competitive position in the market. However, small and medium enterprises are not aware of the importance of strategic planning and defining strategic goals, which is also a research problem of this paper. From the above mentioned the subject of the research arises: to what extent small and medium-sized enterprises adopt strategic plans and have defined strategic business goals, and to what extent strategic planning contributes to the profitability of small and medium-sized enterprises? The empirical research was conducted on a sample of 158 small and medium enterprises registered in the Republic of Croatia, while the aim of the research is to prove that strategic planning of small and medium enterprises significantly contributes to their profitability.

Keywords: *Profitability, Small and medium enterprises, Strategic management, Strategic planning*

1. INTRODUCTION

Management is a managerial activitiy that involves adopting the company's strategy and coordinating the tasks of all employees, in order to achieve common goals by applying available resources (inputs) to create outputs in order to achieve long-term profitability of the company. The above mentioned is a key problem of small and medium enterprises because they do not attach enough importance to strategic planning and defining strategic goals. Without a set mission, vision and strategic goals of the company, it is not possible to achieve long-term progress in a competitive environment. Strategic management of the company means primarily implemented a systematic process of making and implementing integrated decisions and activities of the company's management in order for the company to use the opportunities that are presented to it in accordance with the total available potential from the environment. Only by defining the mission, vision and long-term goals is it possible to create a competitive advantage for the company that will enable its lasting, long-term and stable growth and development. Small and medium-sized Croatian companies are focused on making profits in the short term, which means that they are focused on the economic, operational and financial aspects of business, while less importance is paid to long-term business planning and strategic

plans for defining strategic goals. Empirical research in this paper sought to obtain data on whether and to what extent small and medium enterprises in the Republic of Croatia adopt strategic plans and define strategic goals and to what extent strategic planning is related to the profitability of enterprises.

2. ESSENTIAL DETERMINANTS OF STRATEGIC MANAGEMENT

In recent times, strategy means the struggle for survival and victory in the global market. In the business world, strategy means the struggle of two or more companies for customers and the market, strengthening the competitive position by increasing market share, while achieving continuous profitability for long-term survival in the market. While management is generally defined as the process by which inputs are transformed into outputs (Sikavica et al., 2008), strategic management of the company implies the implementation of managerial analysis and the necessary adjustments to continuous learning through work (Thompson et al., 2008). Strategic management is defined as: "*The process of decisions and activities; The way the organization is run; Coordinating the opportunities and capabilities of the organization; The goal is to achieve a sustainable competitive advantage"* (Buble et al., 2005). Strategic management as a scientific discipline encompasses the whole spectrum of organized knowledge related to the analysis of the environment, setting organizational direction, formulating and implementing a strategy, implementing control and achieving progress (Sikavica and Bahtijarević-Šiber, 2004). To achieve a competitive advantage, companies focus on strategic planning on what the company wants to achieve in the market and its basic opportunities for it, while competitive advantage deals with the issues of how to implement these opportunities (Cingula and Veselica, 2010). Strategic management can be divided into: strategic planning, implementation of strategic plans and strategic control. We can present strategic management as accepting and adapting the company to the challenges from its environment. The survival of companies in today's global market environment, which is exposed to dynamic changes, is possible only through the adoption of quality business policies and strategic plans (Vinšalek Stipić, 2020).

3. STRATEGIC PLANNING IN SMALL AND MEDIUM ENTREPRENEURSHIP

Strategic planning involves the application of management techniques that help organizations define long-term goals for achieving stable growth in the market. Strategic planning involves the development of strategic plans taking into account the risks and opportunities faced by companies. The strategic plan shows the future direction, work goals and strategy of the company (Thompson et al., 2008). Strategic planning does not only mean defining strategic goals but also planning the implementation of a strategy to achieve those goals. It also helps management to know where the company is located and where it wants to go in the future in order to take advantage of opportunities from the environment given the strengths and weaknesses of the company.

3.1. The importance of small and medium enterprises for the progress of the economy

Small and medium enterprises (SME) due to their specifics, are especially studied and researched in relation to large enterprises (LSE). SMEs deserve complex, long-term and oriented support due to the effect on the flexibility and innovation of the economy, growth of employment and exports, reduction of social and regional disparities and acceleration of development. Therefore, governments seek to stimulate the establishment and development of SMEs through economic policy measures, the activities of specialized agencies, undertaking support projects in consulting, information and networking (Vidučić, 2006). Entrepreneurship is a driver of economic growth and a generator of employment opportunities in all modern economies around the world, while small and medium enterprises are the drivers of modern

entrepreneurship. In the conditions of the global economic crisis, the development of individual entrepreneurial competence and entrepreneurial culture are the main preconditions for successful economic growth and development (Radlović et al., 2020). Small and medium enterprises have a significant impact on the European economy: there is talk of large-scale small and medium-sized enterprises and their contribution to social and economic coherence in the European economy. Small and medium enterprises have more labor-intensive production processes than large enterprises and are dominant in the contribution of GDP (Vinšalek Stipić, 2019). The development of small and medium enterprises leads to a relatively equal distribution of income and social stability of society.

3.2. The importance of strategic planning of small and medium enterprises

Strategy development and implementation are the most important managerial tasks. It is necessary for managers to proactively design or develop a strategy for managing a business venture. The winning strategy is aligned with the circumstances of the external situation, the internal resource forces and competitive capabilities of the company, builds a competitive advantage and improves performance. Strategy development and implementation are fundamental managerial functions. Winning or losing a market directly depends on the quality of the company's strategy and the skill with which it is implemented (Thompson at al., 2008).
A powerful market-leading strategy can bring a company from a weak to a leader position, giving it the opportunity to make its products the industry standard. The essence of strategic planning in small and medium enterprises is the implementation of the strategy through strengthening the long-term competitive position and financial results to achieve high profitability. The strategy of small and medium enterprises evolves and changes over time due to proactive and purposeful actions by company managers and the necessary reactions to unexpected events and new market conditions. Closely related to the concept of strategy is the concept of the business model. With the business model of the company, the management shows how and why the product offer and competitive approaches will generate revenues and have a related cost structure that will provide attractive earnings and return on investment. The business model of a company sets out the economic logic for acquiring money in a particular activity with respect to the current strategy of the company.

4. PREVIOUS RESEARCH

There is not a lot of research that studies the impact of strategic planning on business performance and therefore it is difficult to make a comparative comparison for conducting research. Frigo (2002) studies the financial performance of the company as a prerequisite for a successfully set strategy stating that additional measures and strategic management efforts are needed to create added value for the company. Kaplan and Norton (2005) define that the key factor is the implementation of the plan to achieve the goals, and that it is better to have a weaker plan that is well implemented than vice versa – to have a very good plan that is poorly implemented. Hrebiniak (2006) states the fact that the strategy implementation process is more important than the strategy itself. Hrebiniak points out that poorly set strategic goals can prevent the implementation of the strategy, while good implementation of the strategy can overcome the shortcomings of a poor strategic plan. Sloan (2006) states that formal planning models contain a large number of assumptions that cannot be met in the real world because business situations are specific to each other. It can be concluded that traditional approaches to strategy development and implementation are in most cases too formal and inefficient to achieve company's profitability. Certo et al. (2020) state that very little is known about the connection between strategies and company's performance due to their heterogeneity. They point out that quantile regression is suitable for modeling variables that follow a normal distribution and represents an attractive approach for researchers examining business performance.

5. METHODOLOGY

5.1. Goals and hypoteses of the research

The management of small and medium enterprises is not sufficiently aware of the importance of strategic planning, defining strategic goals, mission and vision of the company to achieve successful long-term profitability of the company. That is precisely the research problem from which, as the subject of the research, the aim of the research arises: to determine to what extent strategic planning in small and medium enterprises contributes to their profitable business? Furthermore, this research seeks to investigate how much SMEs attach importance to strategic planning and adopt long-term strategic plans? The aim of the research is to prove the importance of strategic planning as a factor for achieving profitability of small and medium enterprises. The basic scientific hypothesis and auxiliary hypotheses derive from the above:

- H1: Strategic planning significantly contributes to the profitability of small and medium enterprises;
- H1-1: Strategic planning of small and medium enterprises is significantly related to the Return On Sales indicator;
- H1-2: Strategic planning of small and medium enterprises is significantly related to the Return On Assets indicator;
- H1-3: Strategic planning of small and medium enterprises is significantly related to the Return On Equity indicator;
- H1-4: Strategic planning of small and medium enterprises is significantly related to the creation of Value Added.

5.2. Research method

The research described in this paper is based on empirical testing on a sample of 158 respondents - managers of small and medium enterprises in the Republic of Croatia. Data for this survey were obtained from a survey conducted via Google docs, e-mail and telephone conducted in October 2020. A weighted average score of answers to questions on the implementation of strategic planning was obtained for the independent variable X1 Strateg.
Dependent variables from the set research hypotheses (ROS, ROA, ROE, VA) were calculated from the financial statements of small and medium enterprises as of 12/31/2019. To test the set hypotheses, the data were processed in the statistical program SPSS Statistics 17.0. and the obtained results are shown in the tables below. The questions from the survey questionnaire were of a closed type, such as questions with offered answers to which the respondents answered by choosing the offered answers, or questions with offered answers of intensity. Questions with offered intensity answers had a Likert scale with five intensities of agreement or disagreement, with the intensities being as follows: 1 - I absolutely disagree; 2 - I do not agree; 3 - you neither agree nor disagree; 4 - agree; 5 - I absolutely agree. For individual questions from the survey questionnaire, scaled answers were offered as follows: 1 - never; 2 - rare; 3 - sometimes; 4 - often; 5 - very often. Since the independent variable of the regression model (Strateg) was obtained by the weighted average score of the answers to the questions obtained from the survey query the Likert scale, we calculated the internal consistent reliability of the scale by calculating the Cronbach alpha coefficient, which is shown in Table 1.

Table following on the next page

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,946	,947	4

Table 1: Cronbach's alpha coefficient for the statements used to obtain the variable Strateg (Source: Author's own research)

Table 1 shows the calculated Cronbach's alpha coefficient of internal consistency for the statements used in the examination of the implementation of strategic planning of small and medium enterprises from the observed sample. Its value is 0.946, which indicates a good internal consistency of the elements on the scale.

5.3. Research results

Empirical research was conducted on 158 small and medium enterprises of the Republic of Croatia and observed according to the activity they are engaged in, mostly those engaged in retail and wholesale 37,34%, followed by financial operations 16,46%, transport 15,19%. Companies whose main activity is information technology and telecommunications make up 11,39%, construction 5,06% and 14,56% from the observed sample, which can be seen in Graph 1. Companies from the observed sample divided according to the structure of equity are domestic majority private ownership 83,54%, domestic majority state ownership 10,76%, combined domestic and foreign ownership 3,17% and foreign owned company 2,53%, which can be seen in Graph 2.

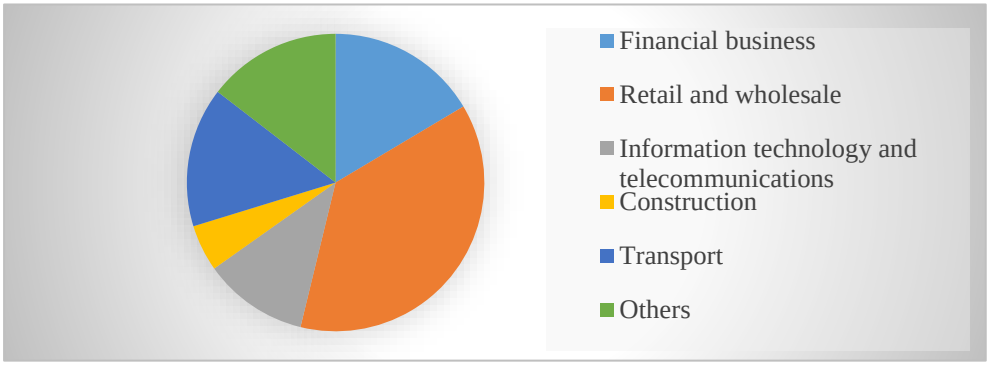


Chart 1: Company's activity (Source: Author's own research)

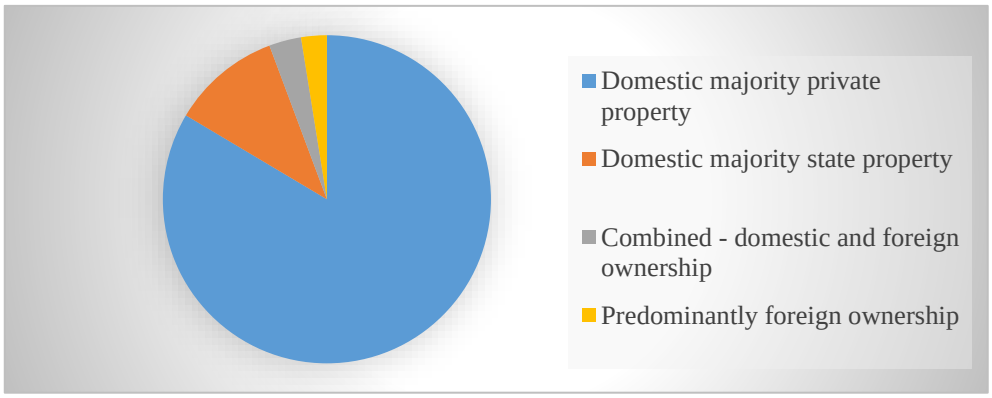


Chart 2: Company's equity structure (Source: Author's own research)

Graph 3 shows that 87,98% of SME managers believe that strategic planning is extremely important for the successful long-term operation of the company, 9,49% do not have a clearly defined opinion while 2,53% do not agree with the statement, which can be seen in Graph 3.

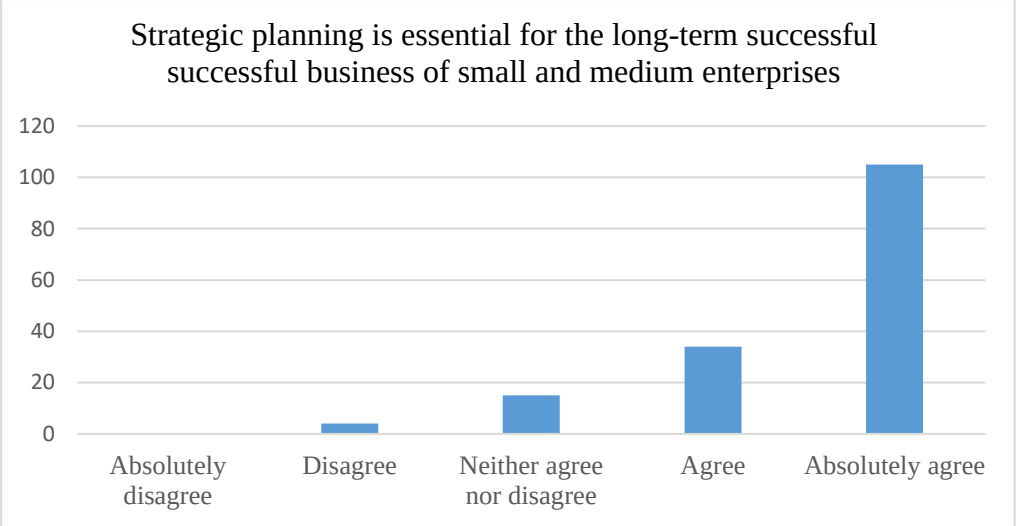


Chart 3: Attitudes about the importance of strategic planning for SME (Source: Author's own research)

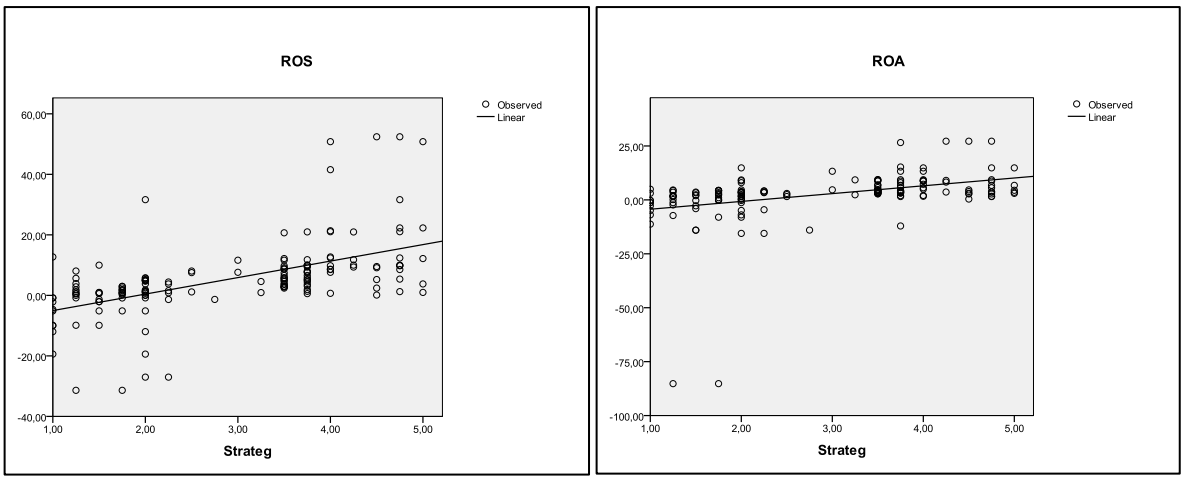
The correlation coefficients between the observed variables (Strateg, ROS, ROA, ROE, VA) are shown in Table 2, which shows that there is a significant correlation of the positive sign and a statistical significance of 0.01. The variable X1 Strateg shows a significant correlation with Return On Sales (0.554), Return On Assets (0.374), Return On Equity (0.376) and with Value Added the correlations is positive but small (0.213)

Correlations

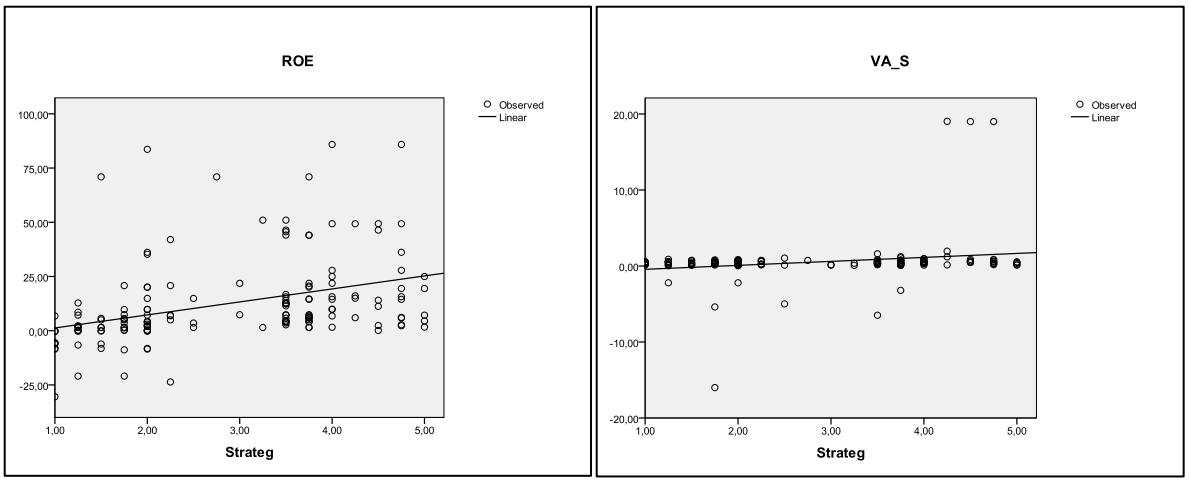
		Strateg	ROS	ROA	ROE	VA
Strateg	Pearson Correlation	1	,554**	,374**	,376**	,213**
	Sig. (2-tailed)		,000	,000	,000	,007
	N	158	158	158	158	158
ROS	Pearson Correlation	,554**	1	,656**	,338**	,261**
	Sig. (2-tailed)	,000		,000	,000	,001
	N	158	158	158	158	158
ROA	Pearson Correlation	,374**	,656**	1	,312**	,130
	Sig. (2-tailed)	,000	,000		,000	,104
	N	158	158	158	158	158
ROE	Pearson Correlation	,376**	,338**	,312**	1	,128
	Sig. (2-tailed)	,000	,000	,000		,110
	N	158	158	158	158	158
VA	Pearson Correlation	,213**	,261**	,130	,128	1
	Sig. (2-tailed)	,007	,001	,104	,110	
	N	158	158	158	158	158

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

Table 2: Correlation coefficients of variables (Source: Author's own research)



Graph 1-2: Display scatter diagrams strategic planning and indicators ROS and ROA (Source: Author's own research)



Graph 3-4: Display scatter diagrams strategic planning and indicators ROE and VA (Source: Author's own research)

Graphs 1-4 show scatter plots for the observed variables from the research sample. From the graphs above it can be seen that the correlation, although not large, exists and that the variables are positively related to each other. Scatter plots for the observed variables show the results of the research from which a positive partial linear correlation is visible.

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	ROS	,523	1,911
	ROA	,559	1,790
	ROE	,869	1,150
	VA	,927	1,079

a. Dependent Variable: Strateg

Table 3: Variance inflation factor (VIF) (Source: Author's own research)

The highest determined correlation between the observed variables is 0.554, which represents a good correlation of significance of 0.01 and does not indicate a problem of multicorrelation. The elimination of the problem of multicorrelation of variables was confirmed based on the calculation of the variance inflation factor (VIF) of the values shown in Table 4. The VIF values are 1,902; 1,099; 1.812 and as there is no single view on what is the value of VIF that points to the problem of multicorrelation, it is often assumed that it is a value of 2.50 as an acceptable level. Given the obtained VIF values for the regression model of the variables included in this study, there is no problem of multicorrelation.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,593[a]	,351	,334	1,01470	,351	20,713	4	153	,000	1,481

a. Predictors: (Constant), Strateg

b. Dependent Variable: VA, ROE, ROA, ROS

Table 4: Regression model: strategic planning and profitability
(Source: Author's own research)

In Table 4. the correlation coefficient (0.593) shows that the correlation between the strategic planning of small and medium enterprises and their profitable business is positive and high. When we look at the ratio F, we see that the empirical ratio F is significantly higher than the theoretical value, which is consistent with the fact that the samples are not from the same population but from different activities, so the variability between groups is significantly higher than within the group. The result of the treatment effect, resulting in differences between groups, with a given significance level of 0.05 and with the number of degrees of freedom amounts (.153). Since Durbin-Watson indicates the absence of autocorrelation of relation errors and the obtained data confirm the set hypothesis H1, we can talk about how there is a significant statistical correlation between strategic planning and the profitability of small and medium enterprises.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,554[a]	,307	,302	1,03871	,307	69,076	1	,156[a]	,000	1,434

a. Predictors: (Constant), Strateg

b. Dependent Variable: ROS

Table 5: Regression model: strategic planning and indicator ROS
(Source: Author's own research)

From the correlation coefficient R (0.554) we can see that there is a positive significant correlation between the variables. The coefficient of determination R2 shows good representativeness of the model. Regarding the F ratio, we can see that the empirical F ratio is higher than the theoretical value (0.000), with a given significance level of 0.05 and with the number of degrees of freedom (1.156) the data obtained confirm hypothesis H1-2, there is a significant statistical correlation between strategic planning and indicators Return On Sales (ROS). Durbin-Watson indicates the absence of autocorrelation of relation errors.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,374[a]	,140	,134	1,15708	,140	25,378	1	156	,000	1,365

a. Predictors: (Constant), Strateg

b. Dependent Variable: ROA

Table 6: Regression model: strategic planning and indicator ROA
(Source: Author's own research)

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,376[a]	,142	,136	1,15602	,142	25,713	1	156	,000	1,432

a. Predictors: (Constant), Strateg

b. Dependent Variable: ROE

Table 7: Regression model: strategic planning and indicator ROS
(Source: Author's own research)

From the correlation coefficient R (0.374) for ROA and R (0.376) for indicator ROE, from the table 6 and 7, we can see that there is a positive correlation between the variables and it is not insignificant. The coefficient of determination R2 shows good representativeness of the model. Regarding the F ratio, we can see that the empirical F ratio is higher than the theoretical value (0.000), with a given significance level of 0.05 and with the number of degrees of freedom (1.156) the data obtained confirm hypothesis H1-3 and H1-4. We conclude that there is a positive correlation, although small is not insignificant, between strategic planning in SMEs and profitability indicators ROA and ROE. Durbin-Watson indicates the absence of autocorrelation of relation errors.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,213[a]	,046	,039	1,21892	,046	7,443	1	156	,007	1,348

a. Predictors: (Constant), Strateg

b. Dependent Variable: VA

Table 8: Regression model: strategic planning and indicator ROS
(Source: Author's own research)

From the correlation coefficient R (0.213) we can see that there is a positive correlation between the variables and it is not insignificant. The coefficient of determination R2 shows good representativeness of the model. Regarding the F ratio, we can see that the empirical F ratio is higher than the theoretical value, with a given significance level of 0.05 and with the number of degrees of freedom (1.156) the data obtained confirm hypothesis H1-5, ie strategic planning in small and medium enterprises is positive but not significantly related to the creation of value added. Durbin-Watson indicates the absence of autocorrelation of relation errors.

6. CONCLUSION

Small and medium enterprises have a significant contribution to the development of the national economy and their share in total GDP is significant. They have an increasing share in the number of employees and exports, ie the progress of the national economy, which leads to the emergence of interest in research of small and medium enterprises. Therefore, there is a need to conduct research on the impact of strategic planning of small and medium enterprises on their profitability. The implementation of empirical research on the connection between strategic planning and the profitability of small and medium enterprises confirmed the set research hypotheses. There was a significant correlation between strategic planning in small and medium enterprises and their profitability (0.593), while the correlation with ROS, ROA and ROE indicators is somewhat smaller. It is small but not insignificant connection of strategic planning of small and medium enterprises with the creation of value added because small and medium enterprises, although profitable, do not realize the added value of enterprises. Organization focused on strategy has greater opportunities for a better end result. The quality of managerial strategy creation has a positive effect on revenue growth, earnings and return on investment. A company's strategy is a necessary business plan that managers use to grow their business, gain a market position, attract customers, compete successfully, run a business and achieve organizational goals.

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PROTECTION OF THE AUTHENTICITY AND INTEGRITY OF MONUMENTS AS A DETERMINANT AFFECTING THE ACTIVITIES OF ENTREPRENEURS - THE OWNERS OF MONUMENTS

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ABSTRACT

The protection of monuments is one of the determinants of restrictions on various civil rights and freedoms, which include freedom of economic activity and the right to property. These restrictions are introduced in order to protect monuments that are part of the cultural heritage, influencing the identity, functioning and development of societies at the international, EU, national and local level. The necessity to protect monuments is therefore also visible from the perspective of the public interest. As far as the protection of monuments is concerned, the key is to protect their authenticity and integrity, so as to pass on to the next generations as close to the authentic monument as possible. However, this does not mean the lack of changes and development of a given historic substance, which must be used and adapted to modern standards of social life, and also not pose a threat from the perspective of users' safety. Businesses are also conducted by entrepreneurs in historic buildings, especially in historic city centers. The protection of monuments, as well as the relevant conservation regulations and decisions, very often lead to limitations in the ownership right, as well as in the freedom of economic activity. These restrictions are necessary to preserve the authenticity and integrity of monuments as a national or even global good, but they must not significantly infringe human rights and freedoms, also in the economic sphere. Therefore, it seems necessary to find an appropriate balance between the public interest (protection of monuments) and private interest (in this case, freedom of economic activity and property rights). Nowadays, due to the numerous freedoms of movement of people, capital, goods and services, as well as the progressive globalization of many areas of social and economic life, it is necessary to develop at the international level appropriate rules and general provisions that will allow to reconcile public and private interests in the sphere of monument protection. The aim of the article is to analyze the sources of universally binding law at the international level in terms of regulations on the protection of the authenticity and integrity of monuments from the perspective of restrictions on the economic activity of entrepreneurs, as well as to formulate de lege lata and de lege ferenda remarks in this respect with attention to legal and economic aspects.

Keywords: *authenticity and integrity of monuments, entrepreneur, owner of the monument, private interest, public interest*

1. INTRODUCTION

Monuments are one of the key elements of cultural heritage and form part of this concept from a legal perspective. Monuments should be treated as tangible cultural assets that constitute the heritage of past generations, shaping culture, tradition, history and identity (Kozień, 2018) both at the world (international), EU, national and regional levels. The preservation and passing on to future generations of material heritage in the form of monuments of past and present generations is in the public interest of each community. The need to protect monuments also results from the principle of intergenerational justice (Dobosz, 2015b). In order to ensure the effective protection of monuments, it is necessary to have appropriate legal regulations

safeguarding the preservation of cultural heritage. Currently, at the level of national legislation, such legal solutions are noticeable, and there are often relevant legal acts regulating the issue of the protection of cultural heritage or monuments (Dobosz, 2015a). At the same time, the issue of the protection of cultural heritage is raised at the international level, especially since the progressive globalization of many areas of social life, as well as the numerous freedoms of movement of people, capital, goods and services mean that in order to ensure the effectiveness of monument protection, it is precisely legal regulations at the international level that are necessary. which should then be respected by all parties to the international treaty, ideally all countries in the world. Legal acts at the international level should be general in nature and indicate specific values that should be protected, as well as define the basic principles and limits of monument protection. From the perspective of monument protection, it is of key importance to protect their authenticity and integrity, which constitute the value of a given preserved monument, both in material and non-material terms. The authenticity of a monument determines its historic character, while its integrity ensures the protection of its uniqueness in a given historical and cultural context (Kozień, 2018a). Monuments may be the property of public and private law entities. Especially in the latter case, it may be necessary to weigh the public and individual interest in terms of the limits of monument protection, and more specifically, their authenticity and integrity. This weighing of public and private interests may apply to one of the most protected rights - property rights. A subject of private law - the owner of a monument may also be an entrepreneur conducting economic activity within a given monument - this may particularly apply to historic city centers. In such a situation, the entrepreneur does not have full freedom of economic activity, granted by the relevant provisions of law, and in comparison to other entrepreneurs who do not conduct business activity, has certain restrictions imposed by law on the freedom of economic activity. At the same time, the possibility of running a business in a historic building may contribute to a better situation of a given entrepreneur on the market. Finding an appropriate balance between the introduction of restrictions on the exercise of the ownership of a historic object and ensuring the freedom of economic activity seems to be necessary from the perspective of weighing the public and individual interests. The aim of the article is to analyze the sources of universally binding law at the international level in terms of regulations on the protection of the authenticity and integrity of monuments from the perspective of restrictions on the economic activity of entrepreneurs, as well as to formulate *de lege lata* and *de lege ferenda* remarks in this respect with attention to legal and economic aspects.

2. CULTURAL HERITAGE, CULTURAL GOOD, MONUMENTS AS AN OBJECT OF PROTECTION

Cultural heritage is a broad concept that includes the notions of a cultural good and a monument, therefore the concept of a monument is not synonymous with the concept of cultural heritage (Pruszyński, 2001). Cultural heritage is defined differently depending on the scientific discipline. From the perspective of the discussed topic, it is worth quoting the definition of J. Pruszyński, who notes that heritage: “it is a stock of movable and immovable things with related spiritual values, historical and moral phenomena, considered worthy of protection of law for the good of society and its development and for the next generations, due to the understandable and accepted historical, patriotic, religious, scientific and artistic values, important for the identity and continuity of political, social and cultural development, proving the truths and commemorating historical events, cultivating the sense of beauty and civilization community” (Pruszyński, 2001). It is also worth quoting J. Purchla's view on cultural heritage that: “The relationship between the past and the future is not limited today to the issue of monuments and their protection. A concept that has seen a spectacular career recently is cultural heritage (cultural heritage). More and more often it replaces the classic concept of a monument. It must

be emphasized that while a monument belongs to the past, heritage serves modern purposes, and heritage is not only tangible cultural goods, but also our memory and identity. Cultural heritage is a dynamic process of its own. It reflects both the attitude of society to the world of values and the very process of reinterpreting values. This is also where the growing importance of cultural heritage lies. Because heritage belongs to all of us, and access to it is one of the basic human rights. Therefore, heritage always has a human dimension. This fact also shows the key importance of social capital - not only for the dynamic process of continuous creation and reinterpretation of heritage, but also for its effective protection" (Purchla, 2013). In the literature on the subject and international legal acts, tangible and intangible heritage are distinguished (Pruszyński, 2001; Gieysztor, 1995). The legal definition of cultural heritage is contained in art. 1 of the Convention Concerning the Protection of the World's Cultural and Natural Heritage (Journal of Laws - of 1976, No. 32, item 190), on the basis of which the following are considered cultural heritage:

- "monuments: architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science;
- groups of buildings: groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science;
- sites: works of man or the combined works of nature and man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view" (Dz.U. – Journal of Laws – of 1976, No. 32, item 190).

The analyzed provision refers in principle *sensu stricto* to material cultural heritage, therefore the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage, executed in Paris on 17 October 2003 (Journal of Laws - of 2011, No. 172, item 1018), pursuant to which in Art. 2 clause 1 sentence 1, the concept of intangible cultural heritage is defined as follows: "The »intangible cultural heritage« means the practices, representations, expressions, knowledge, skills - as well as the instruments, objects, artefacts and cultural spaces associated therewith - that communities, groups and, in some cases, individuals recognize as part of their cultural heritage" (Journal of Laws - Journal of Laws - of 2011, No. 172, item 1018). In art. 2 clause 2 of this Convention indicates the designations of the concept of "intangible cultural heritage", but this catalog is open, as evidenced by the phrase "is manifested inter alia" (Kozień, 2018b). It should be emphasized that currently the issue of cultural heritage is changing dynamically (Dobosz, 2019), and as P. Dobosz rightly points out, "over the last few decades, there has been a clear segmentation of tangible and intangible heritage and at the same time the universalisation of mechanisms for their protection" (Dobosz, 2019). The concept of a monument appears in the above definition of cultural heritage by listing the basic designata of this concept. The concept of a monument should be related to specific designata of material cultural heritage. In this context, it is worth quoting the definition of a monument from art. 3 point 1 of the Polish Act of 23 July 2003 on the protection and care of monuments, according to which a monument is: "real estate or movable property, their parts or units, being the work of a human being or related to his activity and being a testimony to a bygone era or event, whose preservation is in the social interest because of their historical, artistic or scientific value" (Journal of Laws - Journal of Laws - of 2020, item 282 as amended). P. Dobosz points out that "a concept broader than »monument« is the term »cultural good«, which includes not only monuments *sensu stricto*, but also other goods that are a testimony to the cultural development of society" (Dobosz, 1997).

Moving on to the term cultural property, it should be noted that it is on the one hand a broader term than the concept of a monument, but narrower than the concept of cultural heritage. This concept is sometimes interpreted and defined in various ways. In the literature on the subject, the concept of a cultural good is sometimes associated with material objects or with both material and non-material cultural heritage (Dobosz, 1997). In the author's opinion, one should agree with the second approach, i.e. the reference of the concept of a cultural good to material and non-material issues related to the given goods (Kozień, 2018b). Acts of international law will be analyzed - sources of universally binding law, which use different terminology: cultural heritage, monuments, cultural goods. It should be noted, however, that the concept of a monument is the narrowest of the indicated ones, and therefore legal acts using terms that are broader in scope include monuments all the more. With regard to the subject of the article, relating the authenticity and integrity to the concept of a monument seems to be the most appropriate.

3. THE AUTHENTICITY AND INTEGRITY OF MONUMENTS AT THE LEVEL OF INTERNATIONAL LAW

When analyzing international legal acts, it can be noticed that they *expressis verbis* do not use the concepts of authenticity and integrity in relation to cultural heritage designations such as monuments, however, when applying a purposeful interpretation, such protection can be interpreted from international conventions such as: The Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict (OJ - Journal of Laws - of 1957, No. 46, item 212), The UNESCO 1970 Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property (Journal of Laws - Journal of Laws - of 1974, No. 20, item 106), Convention concerning the Protection of the World's Cultural and Natural Heritage (Journal of Laws 1976, No. 32, item 190), and also Convention for the protection of the architectural heritage of Europe (Journal of Laws - of 2012, item 210), especially since they automatically protect their authenticity and integrity, because without such protection it would not be possible to ensure the effective protection of monuments in accordance with the provisions of the Conventions. The issue of the authenticity and integrity of monuments was raised *expressis verbis* in point 24 lit. b Recommendation on the Historic Urban Landscape adopted by the General Conference at its 36th session Paris, 10 November 2011 (http://www.historicurbanlandscape.com/themes/196/userfiles/download/2014/3/31/3ptdwdsom3eihfb.pdf) in the words: “Knowledge and planning tools should help protect the integrity and authenticity of the attributes of urban heritage”. In addition, point 17 of the Recommendation addresses the issue of the threat to the integrity of the urban tissue, as well as the identity of the community, which can occur through the lack of control of the density changes as well as the expansion of cities, and states that: “Urban growth is transforming the essence of many historic urban areas. Global processes have a deep impact on the values attributed by communities to urban areas and their settings, and on the perceptions and realities of their inhabitants and users. On the one hand, urbanization provides economic, social and cultural opportunities that can enhance the quality of life and traditional character of urban areas; on the other hand, the unmanaged changes in urban density and growth can undermine the sense of place, the integrity of the urban fabric, and the identity of communities. Some historic urban areas are losing their functionality, traditional role and populations. The historic urban landscape approach may assist in managing and mitigating such impacts” (http://www.historicurbanlandscape.com/themes/196/userfiles/download/2014/3/31/3ptdwdsom3eihfb.pdf). It should also be emphasized that, in general, the entire Recommendation protects the historical urban landscape, i.e. the complex of cultural goods, both in material and non-material terms, and the structure and legal provisions of the Recommendation allow to state that it protects the authenticity and integrity of the set of cultural goods, i.e. the city historical

landscape. The authenticity and integrity of the monuments was taken up in the Operational Guidelines for the Implementation of the World Heritage Convention UNESCO (WHC. 17/01, https://whc.unesco.org/en/gudelines). Operational Guidelines is a document detailing the Convention concerning the Protection of the World's Cultural and Natural Heritage, which *sensu stricto* refers to properties that have been entered on the UNESCO list or are applying for entry on this list. The Convention concerning the Protection of the World's Cultural and Natural Heritage, as a ratified international agreement, protects the entire cultural heritage and obliges states - Parties to the agreement to protect it, and only some significant examples are entered on the UNESCO list, therefore, in a broad sense, of the entire world cultural and natural heritage (Kozień, 2018a). It is worth emphasizing that in accordance with point 78 Operational Guidelines "To be deemed of Outstanding Universal Value, a property must also meet the conditions of integrity and / or authenticity and must have an adequate protection and management system to ensure its safeguarding" (WHC. 17/01, https://whc.unesco.org/en/gudelines). In points 79-86 of the Operational Guidelines, the criteria for assessing authenticity are indicated, as well as the requirements for certain properties in terms of their authenticity, among which credibility and truthfulness of information about values attributed to heritage, cultural conditions. Moreover, in point 82 indicated that: "Depending on the type of cultural heritage, and its cultural context, properties may be understood to meet the conditions of authenticity if their cultural values (as recognized in the nomination criteria proposed) are truthfully and credibly expressed through a variety of attributes including: form and design; materials and substance; use and function; traditions, techniques and management systems; location and setting; language, and other forms of intangible heritage; spirit and feeling; and other internal and external factors" (WHC. 18/01, https://whc.unesco.org/en/guidelines). For the authenticity of certain properties, the Operational Guidelines refer to the Nara Document of Authenticity (paragraph 79 of the Operational Guidelines). Then in point 87-95 Operational Guidelines dealt with the issue of the integrity of properties applying for inclusion on the UNESCO List, for which, pursuant to Art. 87 Operational Guidelines integrity is a prerequisite. In point 88 The Operational Guidelines define the criteria for understanding the integrity of heritage as follows: "Integrity is a measure of the wholeness and intactness of the natural and / or cultural heritage and its attributes. Examining the conditions of integrity, therefore requires assessing the extent to which the property:

a) includes all elements necessary to express its Outstanding Universal Value;
b) is of adequate size to ensure the complete representation of the features and processes which convey the property's significance;
c) suffers from adverse effects of development and / or neglect" (WHC. 18/01, https://whc.unesco.org/en/guidelines).

Then in point 89-95, detailed criteria for the integrity of individual types of properties nominated for inclusion on the UNESCO List are indicated. The Nara Document of Authenticity (Nara, 1994, https://www.icomos.org/charters/nara-e.pdf) refers to the issue of the authenticity of cultural heritage, which also has two annexes, i.e. suggestions for supplementing the document proposed by H. Stovel and the definition part. It should be noted, however, that this document has a program character (Kozień, 2018a), in which the issues of cultural diversity, as well as cultural heritage, credibility of information sources, and the value of cultural goods can be distinguished. Moreover, it was emphasized that "Conservation of cultural heritage in all its forms and historical periods is rooted in the values attributed to the heritage. Our ability to understand these values depends, in part, on the degree to which information sources about these values may be understood as credible or 47 truthful. Knowledge and understanding of these sources of information, in relation to original and subsequent characteristics of the cultural heritage, and their meaning, is a requisite basis for

assessing all aspects of authenticity" (Nara, 1994, point 9), and also marked authenticity as "Essential qualifying factor concerning values" and stressed that "The understanding of authenticity plays a fundamental role in all scientific studies of the cultural heritage, in conservation and restoration planning, as well as within the inscription procedures used for the World Heritage Convention and other cultural heritage inventories" (Nara, 1994, point 10). The suggestions of H. Stovel additionally emphasize the diversity of cultures and cultural heritage, and indicate the need for interdisciplinary and international cooperation in the assessment of authenticity, as well as the importance of intercultural dialogue and the need to raise public awareness of the dimension of cultural heritage. In addition, Annex 1 highlights the need to document the individual character of the authenticity of a given monument and site, and also notes that the assessment of authenticity requires constant updating (Nara, 1994; Kozień, 2018a). The issue of protecting the authenticity and integrity of monuments has also been raised in doctrinal documents. One of the most important of them is the International Charter for the Conservation and Restoration of Monuments and Sites (Venice Charter, 1964, https://www.icomos.org/charters/venice_e.pdf). The preamble to the Venice Charter emphasizes the importance of communicating human values "in the full richness of their authenticity" (Venice Charter, 1964), which was also linked to the intergenerational relationship as part of the principle of intergenerational justice. In art. 5 of the Venice Charter, the limits of interference with the monument are indicated in art. 6 the issue of the conservation of the surroundings within the conservation of a given monument was raised, in Art. 9 emphasized the need to respect the old substance "based on respect for original material and authentic documents" (Venice Charter, 1964), in art. 11 the issue of restoration of the monument was raised in relation to its many historical layers, creating a presumption for the protection of the later layer of the monument, while art. 12 determines the necessity of harmonious connection with the whole of the fragments replacing the missing elements that must be distinguished from the authentic parts. In the context of integrity, art. 14 of the Venice Charter, which explicitly states that "The sites of monuments must be the object of special care in order to safeguard their integrity and ensure that they are cleared and presented in a seemly manner" (Venice Charter, 1964). The second doctrinal document worth mentioning when addressing the subject matter is Charter for the Conservation of Historic Towns and Urban Areas (Washington Charter, 1987, https://www.icomos.org/charters/towns_e.pdf). In art. 2 of the Washington Charter, it was decided that the protected values "include the historic character of the town or urban area and all those material and spiritual elements that express this character", among which the following were distinguished in the open catalog: "a) Urban patterns as defined by lots and streets; b) Relationships between buildings and green and open spaces; c) The formal appearance, interior and exterior, of buildings as defined by scale, size, style, construction, materials, color and decoration; d) The relationship between the town or urban area and its surrounding setting, both natural and man-made; and e) The various functions that the town or urban area has acquired over time" (Washington Charter, 1987). In addition, it was emphasized that any violation of the above values may threaten the authenticity of the city or areas of the historic city. It is worth emphasizing that this provision *expressis verbis* protects the authenticity of monuments, but de facto also protects the integrity of the historic area of the city (Kozień, 2018a). In art. 5 of the Washington Charter, the issue of conservation plans for cities and historic areas of cities was discussed, which refers to the issue of integrity. An important provision is also art. 10 of the Washington Charter regulating the issue of introducing new contemporary elements to the historic urban tissue (integrity), according to which "The introduction of contemporary elements in harmony with the surroundings should not be discouraged since such features can contribute to the enrichment of an area" (Washington Charter, 1987). The above analysis indicates that at the level of legally binding international law, there is no *expressis verbis* reference to the protection of the authenticity and integrity of

monuments; which is also indicated by law. It is worth emphasizing that similar observations can be applied to legal acts at the EU, national and local level. In principle, the authenticity or integrity of monuments *expressis verbis* appears in legal acts of a soft law nature issued by UNESCO, i.e. the Recommendation on the Historic Urban Landscape, Operational Guidelines for the Implementation of the World Heritage Convention UNESCO and the Nara Document of Authenticity, as well as in doctrinal documents, i.e. Conservation and Restoration of Monuments and Sites (Venice Charter, 1964) and Charter for the Conservation of Historic Towns and Urban Areas (Washington Charter, 1987). As a consequence, *de lege lata*, it can be indicated that the authenticity and integrity of monuments should be protected values, and should also indicate the directions of interpretation of legal norms, but they are not absolutely binding (ius cogens). However, it should be emphasized that without protection of the authenticity and integrity of monuments, it is very difficult to talk about effective protection of monuments *in genere*, therefore it seems to be a large gap in the law, that there are no strictly binding legal regulations regarding the protection of the authenticity and integrity of monuments, which is necessary from the perspective of weighing public and private interests, and would also allow the adoption of certain standards of the limits of monument protection, and thus also the limits of interference with property rights and freedom of economic activity.

4. PROTECTION OF THE AUTHENTICITY AND INTEGRITY OF MONUMENTS AND THE LEGAL SITUATION OF ENTREPRENEURS - THE OWNERS OF MONUMENTS

Monuments are owned by public or private law entities. Therefore, it is most often necessary to balance the individual and public interest in the area of monument protection limits, and therefore the related restrictions on the exercise of the right of ownership, as well as ensuring the widest possible exercise of the right of ownership. The international legislator in art. 17 sec. 1 The Universal Declaration of Human Rights (https://www.ohchr.org/EN/UDHR/Documents/UDHR_Translations/eng.pdf) establishes the right to property as belonging to each person individually as well as jointly with others. Similarly, in accordance with art. 22 of the Universal Declaration of Human Rights "Everyone, as a member of society, has the right to social security and is entitled to implementation, through national effort and international co-operation and in accordance with the organization and resources of each State, of the economic, social and cultural rights" (https://www.ohchr.org/EN/UDHR/Documents/UDHR_Translations/eng.pdf). The right to property and the freedom of economic activity is protected in legal acts - the sources of universally binding law at the international, EU, national and local level, and is at the basis of a democratic state ruled by law. As a consequence, the subject with the ownership right has the broadest possible bundle of powers (Buchanan, 1997; Adler-Karlsson, 1967) to rule the thing, of course in accordance with applicable law. As a consequence, theoretically, it should be stated that the entrepreneur - the owner of a building, conducting business activity in a historic building should have the right to freely shape the appearance of a given place, conduct any business activity, conduct renovation works and rebuild a given place in accordance with his will. Taking such an approach into account, in a short time it could lead to the irretrievable loss of significant parts or entire monuments, which are of key importance to the cultural heritage of a given community or even the international community. It should also be emphasized that entrepreneurs running a business in historic buildings benefit from this, because these places are usually located in city or town centers, and apart from this historic building, it is easier to draw attention from a marketing perspective. Therefore, it should be stated that entrepreneurs operating in historic buildings or who are their owners have certain measurable benefits in this respect, and therefore they should take special care of a given monument, and legal regulations may define specific limits of interference with a monument. Private interest cannot be absolute.

The principle of sustainable development derived from the concept of sustainable development may be helpful in weighing public and private interests (Kozien, Kozien, 2018b; Kozień, Kozień, 2019; Boyle, Freestone, 2012; Cordonier-Segger, Khalfan, 2012; Pearce, Turner, 1990 ; Skrzydło-Niżnik, Dobosz, 2004; Winter, 2004). It results mainly from the analysis of the social aspect of economic development in the concept of sustainable development, where one can notice the transition from the well-being of the individual to the social good, taking into account the compromise between them (Adamczyk, 2007), as well as the possibility of combining social and individual interest in the concept of "in a visible hand", according to which, according to A. Chandler, certain decision-making actions should be taken at various levels in order to harmonize individual and social interests (Chandler, 1980). Carrying out the weighing of the private interest and the common good, such as the designates of cultural heritage - monuments, can sometimes lead to the weighing of selfishness and altruism and criticism of private property (Roellecke, 2005), which is not the right approach. The common good cannot be the basis for the criticism of private property that appears in philosophical and philosophical-legal views (Roellecke, 2005). In this context, it is worth citing the understanding of property in the concept of G.W.F Hegel, who did not treat property as liberation, but as a burden and limitation of the person and his actions (Roellecke, 2005). Nowadays, differences can be noticed in, for example, the ownership of movable and immovable things (Roellecke, 2005), which may to some extent modify Hegel's approach to ownership, but the merits remain the same - being the owner of a given thing is not an absolute right, unlimited exercise the right of ownership in accordance with and within the limits of applicable law, including administrative law in the field of monument protection. As a consequence, the legislator may impose, within the limits of the principle of a democratic state ruled by law, certain burdens and limitations of the right to property, which, however, do not violate the right to property as a fundamental right - human rights (Buschmann, 2017), as well as essential elements of the right to property.

5. CONCLUSIONS

Coming to the conclusion, it should be noted that legal acts at the level of international law of a legally binding nature, as well as those of a soft law and doctrinal documents address the issue of protection of cultural heritage designates, and therefore also monuments. It should also be emphasized that there are numerous legal acts protecting monuments at the level of EU, national and local law. This translates into the existence of restrictions on the ownership right and freedom of economic activity and may apply to entrepreneurs - owners of monuments or running a business in historic buildings. When weighing private and public interests, the principle of sustainable development, derived from the concept of sustainable development, may be helpful in this respect. The concepts of authenticity and integrity of monuments appear *expressis verbis* only in UNESCO soft law legal acts and doctrinal documents, although without protection of the authenticity and integrity of monuments it is difficult to imagine effective protection of monuments at all. Therefore, it is necessary *de lege ferenda* to formulate, preferably in a legally binding act of international law, a strict and flexible definition of the authenticity and integrity of monuments with an indication of their features (Kozień, 2018a). It is also important from the perspective of the owners of monuments, because the concepts of authenticity and integrity, with well-formulated definitions, could become determinants of the limits of permissible actions of owners exercising their ownership rights and possible economic activity, as well as the limits of permissible limitations of ownership and freedom of economic activity. It can therefore be concluded that the basis for restricting the right to property and the freedom of economic activity in the case of monuments should be the protection of their authenticity and integrity.

The issues of monument protection should be viewed today from an interdisciplinary perspective, also taking into account, inter alia, the achievements of management science (Magliacani, 2015), also in the field of project and risk management (Kozień, 2018c), which gives the possibility of broad support for the implementation of projects (Kozien, Kozien, 2018a) also in the field of cultural heritage.

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ANTECEDENTS OF DEVIANT WORKPLACE BEHAVIOR: A GENERAL FRAMEWORK

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ABSTRACT
The aim of the paper is to present a general framework of deviant workplace behavior. The paper is based on the literature review on various factors that contribute to deviant workplace behavior. Firstly, various antecedents of deviant workplace behavior are identified and lately they are integrated within general framework. Antecedents of deviant workplace behavior are categorized into: individually related, organizationally related and work-related antecedents. Among individually related antecedents, the paper explains organizational injustice, inadequate organizational culture, poor organizational climate, inappropriate organizational policy and practice, insufficient organizational support, inadequate organizational structure, organizational changes, etc. Furtherly, individually related factors were explained, such as demographics, personality traits, attitudes, attributes, emotions etc. Finally, contribution of work-related factors (inadequate job design; unclear job descriptions, work overload, inadequate resources, job insecurity etc.) to deviant workplace behavior are described. In conclusion, implication for theory and practice are presented as well as suggestion for future research.
Keywords: *antecedents, deviant work place behavior, general framework*

1. INTRODUCTION

In last few decades, deviant workplace behavior has drawn much research interest among organizational behavior scholars. Studies were mainly focused on investigation of negative deviant workplace behavior (destructive, dysfunctional) although certain studies examined positive (constructive and functional) deviant workplace behavior. Negative deviant workplace behavior refers to behavior that violates interests of firm and is destructive toward organization and/or its employees. Appearance of negative deviant workplace behavior cause additional costs and have undesirable economical, sociological and psychological effects (Bodankin and Tziner, 2009). It is found that negative deviant workplace behavior is connected with the lower level organizational citizenship behaviors, decreased productivity, employee absenteeism (Brooks, 2012; Howlander, et al, 2018), lost work time, high turnover (Henle et al, 2005), lower efficiency and quality, image deterioration, costs of legal action associated with serious types of deviance (van Fleet and Griffin, 2006) etc. Hence, the nature of negative deviant workplace behavior should be examined more deeply. There were substantial number of studies on factors that investigated employee involvement into deviant behavior. Early studies have mainly focused on particular antecedents without comprehensive approach, which has created the need for more integrated research.

2. TYPES OF WORKPLACE DEVIANCE

2.1. Positive workplace deviance

Positive (constructive) deviant workplace behavior (DWB) is defined as a behavior that deviate from organizational norms and procedures in order to enhance the well-being of an organizations, its members, or both (Bodankin and Tziner, 2009). Positive DWB includes constructive breach of the organizational norms with good intentions in the background. By engaging in positive deviance, workers deviate from the norms that are inadequate,

dysfunctional, obsolescent and unethical. Such behavior is often based on altruism and pro-social motives. Lawrence and Robinson (2007) assume that functional deviant behavior is based on the protection of the autonomy, self-respect and fairness. According to Appelbaum *et al.* (2007) positive DWB includes organizational citizenship behavior, "whistling", social responsibility, and creativity/innovation. Positive DWB can be divided into organizational and interpersonal (Galperin, 2002). Positive organizational DWB is consisted from: a) constructive breach of the organizational norms aiming to improve task performance, objective completion and ethical goals; or b) innovative breach of organizational norms to enhance creativity. Positive interpersonal DWB includes non-acceptance of dysfunctional directives, criticizing the incompetent superiors (Spretzer and Sonenshein, 2004) or pointing on ethically questionable conduct (Appelbaum et al, 2007). Positive interpersonal DWB happens when worker does not comply with a supervisor's order or team member requirements, aiming to improve performance. Example of positive organizational DWB is when employees start innovation actions that brake performance-limiting norms based on understanding of the inadequacy of these norms.

2.2. Negative workplace deviance

In scientific research, various terms are used for negative deviant workplace behavior (DWB), such as destructive workplace deviance (Berry *et al.,* 2007; O'Neil and Hastings, 2011), counterproductive work behavior (Marcus and Schuler, 2004; Bowling and Gruys, 2010), antisocial work behavior (Giacalone and Greenberg, 1997; Lee *et al*., 2005), dysfunctional work behavior (Van Fleet and Griffin, 2006; Brennan, 1998) organizational misbehavior (Vardi and Wiener, 1996; Brooks, 2012) etc. The often cited definition of DWB is one by Robinson and Bennet (1995) that defines it as a voluntary behavior that violates significant organizational norms, threatening the well-being of an organization, its employees, or both. Robinson and Bennet (1995) incorporated various types of DWB into unique framework that is based on two dimensions: the first dimension refers to the severity of workplace deviance (mild or severe), while second dimension refers to the source of deviance (organizational or interpersonal). According to these scholars types of DWB are grouped into: 1) Organizational deviance that is divided on *production deviance* (minor intensity) such as leaving early, came in late to work, taking excessive breaks, intentionally working slow, wasting resources; and *property deviance* (severe intensity) such as sabotaging equipment, stealing from company, accepting kickbacks, lying about hours worked; and 2) Interpersonal deviance that is divided on *political deviance* (minor intensity) such as spreading gossips about employees, showing favoritism, blaming co-workers, counterproductive competition, and *personal aggression* (severe intensity) such as sexual harassment, verbal abuse, stealing from co-workers, endangering co-workers etc. That typology is widely accepted and often used in scientific research in the area of organizational behavior, regardless of other classifications on DWB that are described and offered in the literature (e.g. Spector *et al.* 2006; Bowling and Gruys 2010 etc.).

3. ANTECEDENTS OF NEGATIVE WORKPLACE DEVIANCE (DWB)

Numerous studies have analyzed the possible antecedents of negative DWB. From the individual point of view, these antecedents could be grouped into internal variables and external forces. Internal variables refer to internal disposition and internal propensity that drives people toward certain behavior. On the other hand, external variables might come from workplace, organizational environment or from general environment. General environment variables might be economic crisis, unemployment or political instability etc. that create the base for some employees to resort to negative deviance.

Individually related antecedents	*Organizationally related antecedents*	*Work related antecedents*
• Personality traits • Attitudes, attributional variables, perception, values, motives, experience, emotions • Demographic variables • Biological factors and mental health	• Organizational injustice • Insufficient organizational support • Poor organizational climate • Inadequate organizational culture • Inadequate organizational policies and practice • Inadequate organizational structure • Organizational changes • Industry type • Company size	• Inadequate job design • Unclear job description • Work overload • Inadequate resources • Inadequate working conditions • Job insecurity • Bad relations with co-workers and supervisor • Job specificities

Table 1: Antecedents of negative deviant workplace behavior: A general framework

Various antecedents of DWB are usually grouped into: individual factors, social/ interpersonal factors, and organizational factors (Boye and Jones, 1997; O'Boyle *et. al.* 2011; Malik and Lenka, 2017). According to similar classification, causes of negative DWB can be grouped into: a) individually-related factors, b) organizational-related factors and c) work-related factors (Mazni and; 2011; Alias *et al.*, 2013). Based on the analysis of the literature, current study use typology on antecedents of DWB that falls into three main categories: organizationally related factors, individually related actors and work-related factors. Various antecedents are firstly retrieved and then placed into appropriate category (Table 1). Some studies consider that organizational antecedents play more important role than interpersonal and individual level antecedents (Walsh, 2014; Malik and Lenka, 2017), other emphasize the importance of interpersonal and individual antecedents (Brown and Treviño, 2006; Witt and Carlson, 2006; Načinović Braje *et al*., 2020), while certain studies emphasize work-related factors in stimulating DWB (Gilboa *et al.*, 2008). O'Boyle *et. al.* (2011) points out that these antecedents mutually interact even they are in different categories.

3.1. Individually based antecedents

There are subsequent number of research on DWB which analyzed individual predispositions for deviant behavior. Individually based factors of DWB include various characteristics, emotions and cognitions of workers (O'Boyle *et. al.*, 2011). In this category, the first research topic are dispositional variables such as demographics (gender, age, ethnicity, education level, tenue, status etc.) and personality traits. Some scholars find that workers who differ in terms of certain demographic variables may be more prone to negative DWB (Ng and Feldman, 2008) which can be the case especially if diversity is not treated and managed properly (Green *et al.*, 2019). Regarding gender, certain studies found that men were more often involved in negative DWB (Santos and Eger, 2014; Aleksić *et al.*, 2019) and in workplace aggression in comparison to women (Martinko *et al*., 2006; Cross *et al.*, 2011). Chernyak-Hai *et al.* (2018) found no Mean differences in individual and organizational deviance regarding gender, but differences were found in profiles variables. Furthermore, it was found that certain types of production and property deviance are more likely connected to younger employees, those with less tenure, employees that work part-time, and are at lower positions (Frank, 1989; Hollinger & Clark, 1983). Similarly, Appeelbaum *et al.* (2005) states that employees with less tenure are more likely to engage in property deviance, while less educated employees are more likely to engage

in unethical behavior, and that younger employees are less honest than older employees. On the other side, some studies found that employees who have longer tenure are more involved in certain types of negative DWB (Ng and Feldman, 2010). In investigation of personality traits as antecedents of DWB, Five-Factor Model (FFM) is used most, although other personality trait frameworks are used as well. The FFM includes five higher order personality traits: Neuroticism, v.s. Emotional Stability; Extraversion; Openness to Experience; Agreeableness; and Conscientiousness (Mc Cree and Costa, 1987). Conscientious is characterized by responsibility, thoughtfulness, organization skills, diligence, goal-orientation, self-discipline. Agreeableness refer to friendliness, warmth, good-nature, adaptability, trustworthy, cooperativeness, tolerance, empathy and compassion. Neuroticism is characterized by the low emotional adaptation and negative affect such as fear, anxiety, jealousy and impulsivity. Extraversion refers to sociability, activeness, self-confidence, persistence and assertiveness. Openness to experience is associated with inquisitiveness, creativity, imagination, independence, and non-conformity. Based on meta-analytic method (Berry *et al*., 2007), most evidence is found for interrelation of negative DWB with low consciousness (irresponsibility, untrustworthy, dishonesty, destructivity) and low agreeableness. Some studies found positive relationship with low emotional stability. neuroticism, (Millam *et al.*, 2009, Bolton *et.al.*, 2010; Mount *et al*., 2006; Kozako *et al*., 2013) and negative affectivity that is connected with provocativeness and aggressiveness (Gor, 2007; Berkowitz, 1998). Additionally, scholars found positive connection of negative DWB with narcissism and manipulative personality (Bennet and Robinson, 2000; Paulhus and Williams, 2002) while negative connection is found with emotional intelligence (Aznira, 2006; Rahman *et al*., 2012). Regarding openness to experience, most studies (Liao *et al.*, 2004; Kozako *et al*., 2013 etc.) found its negative connection with negative DWB, but other found such connection to be positive (Bolton *et al.*, 2010). Results regarding extraversion are similar, i.e. in some studies relationship was positive (Santos and Eger, 2014; Lee *et al.*, 2005), while other studies found negative relationship (Berry *et al.*, 2007; Bolton *et.al.*, 2010; Mount *et al*., 2006) or insignificant relationship (Kozako *et al.*, 2013) with DWB. Marcus and Schuler (2004) emphasize the importance of self-control in reducing involvement in deviant behavior. Furthermore, certain specifics in individual beliefs, perceptions, interests and values are assumed to be connected with workplace deviance (Van Fleet and Griffin, 2006). Immoral attitudes and low trust are individually based variables that could influence on negative DWB. Attitude variables, such as theft approval, company contempt, intention to quit and dissatisfaction has been connected with at least one of the types of negative DWB, such as theft, absenteeism, substance abuse, privilege abuse (Bollin and Heatherly, 2001). Based on literature review, O'Boyle *et al.* (2011) cite other scholars that add attributional variables such as organizational constrains (Fox et al, 2001), justice seeking (Cohen-Charash and Spector, 2001), turnover intentions (Thomas *et al.*, 2001) and job burnout (Cropanzano *et al.*, 1997) as individually based variables that enhance negative DWB. O'Boyle *et al.* (2011) stated that these attributional variables interact mutually and with personality traits, and that such interaction create specific influence on DWB. Marcus and Scholer (2004) states that certain negative emotions of employees such as job dissatisfaction, stress, pressure, frustration, anger, reprimand, demotion, anxiety etc. can serve as triggers to engage in negative workplace behavior. Harvey *et al.* (2016) states that negative emotions can override rational consideration which might make employees more inclined to deviancy. Additional individual variables that influence on DWB might be biological factors and mental health. Some scholars find that brain structure and psychopathy are associated with certain types of negative deviancy such as violence and aggressive behavior (Brennan, 1998). It should be pointed out that the possession of these individual characteristics does not necessarily mean that they will always lead to DWB, but rather incorporate risk for such behavior.

Despite that, "in virtually all cases, detailed background reviews of violent individuals uncover earlier warning signs such as cruelty toward animals, interpersonal hostility, interests in weapons, proneness to making verbal threats, and so forth" (Van Fleet and Griffin, 2006).

3.2. Organizationally based antecedents

Organization provides a space in which employees spend their working life, so organization-related factors have an important role in shaping employee behavior. Van Fleet and Griffin (2006) perceive that organization-related factors are catalyst for dysfunctional events. Among organizational-related factors, Chirasa and Mahapa (2012) included: inadequate organizational climate, organizational injustice, insufficient organizational support, low level of trust in organizations. O'Boyle *et. al.* (2011) assume that factors such as climate, perceptions, norms and employee social network connection form group-related factors, whereby organizational-related factors include standards, policies, procedures, industry etc. This paper will explain the following organizationally based antecedents: organizational injustice, poor organizational climate, insufficient organizational support, inadequate organizational culture, inadequate organizational policies and practice, inadequate organizational structure, organizational changes, industry type and company size. *Organizational injustice* could appear as procedural injustice (based on unjust or nontransparent organizational processes and decision making), distributive injustice (injustice connected with the distribution of the results and outcomes - not in line with the contribution, effort and capabilities of employees) and interactional injustice (based on unjust interactions and interpersonal relationships where employees are not treated with dignity and respect). Feelings of injustice may occur if the employees feel that they have not been paid adequately (a form of distributive injustice) and/or that their superior is abusing them (interactional injustice). If decisions made in the organization are perceived as unfair (type of procedural injustice), frustration and deviant workplace behavior could increase. Perceived injustice can cause negative feelings such as low self-esteem, helplessness, and self-destructive behaviors (Cloutier *et al.*, 2018). Empirical studies have shown that organizational justice is a strong predictor of sabotage (i.e., harmful or disruptive behavior) and other negative behaviors in an organization. Perceptions of injustice are associated with increased aggressive and other deviant behaviors in the workplace (Skarlicki and Folger, 1997), such as engaging in revengeful behavior, expressing hostility (Greenberg, 1987) fluctuation, unproductive behaviors (Cohen-Charash and Spector, 2001) and declining responsibility in organization (Cropanzano and Greenberg, 1997). Scarlicki and Folger (1997) found that distributive justice is negatively associated with retaliatory organizational behaviors that involve pretending illness and intentionally destroying or squandering equipment or materials. Also, Aquino *et al.* (1999) found evidence that distributive justice is negatively associated with interpersonal negative deviant behaviors, such as the spread of rumors about individuals in the organization. The connection between organizational injustice and DWB is usually based on the theory of reciprocity norm (Gouldner, 1960), which assumes that workers reciprocate the treatment received by others (bad or good) according to their perception. *Inadequate organizational culture* is next organizationally related factor. Organizational culture includes the set of beliefs, values and assumptions that are shared among the members of organization and are expressed through visible artifacts (Schein, 2004). Organizational culture could be perceived as universal routine referring to the core and fundamentals of the organization (Kochan, 2013), its goals and practices (An and Kang, 2015). In many studies it has been shown that organizational culture has an important role in influencing on positive and negative outcomes within organizations. Individuals usually behave in a way that is consistent with their underlying values, assumptions and beliefs. Additionally, individual's behavior is guided by the displays of behavior from others at workplace and on information about values, norms, expectations, and behavioral outcomes (Glomb and Liao, 2003).

When organizational culture doesn't approve various types of negative DWB, this type of behavior is expected to be reduced. Empirical research confirmed that corporate culture can boost or demotivate DWB (van Fleet and Griffin,2006; Kalemci *et al.*, 2019). There are examples of organizational culture that support aggressive goal-achieving behavior, usually based on reward system, so incivility could appear if rude behavior persists (Valentine *et al.*, 2016). Several cultural values were found to be connected with negative DWB such as emphasis on materialism and extrinsic rewards (Deckop et al. 2015), individualism, higher power distance, low paternalism (Kalemci *et al.* 2019). Therefore, many scholars emphasized that creating the code of ethics is crucial to develop the culture of organizational integrity and to encourage ethical behavior (Valentine *et al.*, 2016), including diversity tolerance. *Organizational climate* is often defined as the work atmosphere resulting from experience of employees, their understanding and relationships. Organizational climate includes patterns of attitudes, feelings and behavior within the organization. Organizational climate is influenced by manager's attitudes, assumptions and behavior, so abusive, hostile and inappropriate style of supervision can cause workplace deviance. Uncooperativeness and ineffectiveness within work group or team could deteriorate organizational climate and act similarly. When employees feel the egoistic climate, they tend to believe that the organization encourages them to engage in self-interest behavior and act with the little regard for their collages (Cullen *et. al.*, 2003). On the other side, if employee's expectations are met, based on integration of workers and organizational goals, they will perceive positive climate. Wang *et al.* (2011) stated that positive climate facilitates employee inclusion, use of their capabilities, employee development and fulfilment of their needs. The creation of the pro-social environment associated with the caring climate facilitate pro-organizational behavior and discourage negative workplace deviancy (Pagliaro *et al.*, 2018). Kaur (2017) states that ethical climates of independence, law-and-code, and rules increase commitment to the organization and reduces negative DWB. *Insufficient organizational support* is assumed to increase the incidence of negative DWB (Thau and Mithcell, 2010). Organizational support includes helping the employees during their day-to-day working routine, in creation and development of new business ideas, in allocation of free time, in adjustment within adequate organizational structures (characterized by decentralization, participation in decision making process, autonomy), with appropriate compensation system and tolerance for trial-and-errors effects (Alpkan *et al.*, 2010). When employees feel that the organization is concerned with their welfare, they are supposed to be less interested to engage in negative DWB. *Inadequate organizational policies and practice*, especially human resource (HR) policy and practice may influence on workplace deviance. These policies may interact with an employee's exchange ideology or equity sensitivity to produce perceptions of ambiguity and inequity (Witt, 2006). Factors such as strict policies, and conflicting rules and procedures and might cause employees to feel imbalances (Zoghbi-Manrique-de-Lara and Verano-Tacoronte, 2007). Some scholars have found that fair HR practices are positively related with risk-taking and inventive values and negatively related with dysfunctional DWB (Chirasha and Mahapa, 2012). Intrinsic motivation shouldn't be neglected as it is shown that it reduces the level of negative DWB (Michel and Hargis, 2017). To reduce negative deviant behavior, Rafiee *et al.* (2015) emphasized the importance of employee development which includes: training, teamwork, career path, development of communication, skills and interpersonal relationships. Regarding the *type of organizational structure* (organic versus bureaucratic), connection of deviant workplace behavior is analyzed with particular structural elements such as level of prescribed organizational norms, hierarchy, centralization, worker autonomy, division of labor, specialization, type of communication, control and monitoring, leadership style, etc. Organizational norms determine what types of behavior is acceptable and desirable and what is not.

Employees who don't comply with the norms and who cannot give an acceptable explanation for their violation are evaluated negatively, experience sanctions and negative emotional consequences, such as negative feelings of guilt and shame (O'Boyle *et. al*, 2011). The existence of inadequate organizational norms, whether written or unwritten, can cause certain types of deviant behavior. For example, if norm such as incivility, or delay at work, develop over time, it could influence on increasing the incidence of such behavior. Marasi *et al.* (2018) examined influence of formalization (norms) and centralization on DWB and find that lower levels of formalization and higher levels of centralization (sub-factors such as hierarchy and participation in decision-making) lead to greater involvement in deviant behavior. McCardle (2007) found that in mechanistic organizational structures (which are highly formalized, non-participatory, strictly controlled, and inflexible), procedural fairness is important in determining whether workers will engage in negative DWB. McCardele (2007) points out that in centralized organizational structures, employees have little or no influence on the distribution of work tasks and resources, which can increase their sense of powerlessness. Yet, it would be useful to conduct additional comprehensive studies that will cover all structural elements including the level of teamwork, process approach, flexibility etc. to detect the relationship between the type of organizational structure and negative DWB. It is generally assumed that bureaucratic organizational structure allows for better efficiency and control but on the other hand, it limits flexibility, creativity, innovation, autonomy and development of employees that might create their anxiety, stress, and a lack of intrinsic motivation. One can assume that organic organizational structure could offer better opportunity for creating inspiring work environment, encourage positive DWB and discourage negative. Baron and Neumann (1998) found that workplace aggression, as type of negative DWB, was caused by *organizational changes* that includes: changes to cut overall costs (such as reducing the number of employees), social changes, changes that threaten job security and structural changes (changes in manager positions, procedures, and organization structure). O'Boyle *et. al.* (2011) state that industry type matter and that some industries enable negative workplace behavior through enhanced autonomy, joint with the lack of surveillance and opportunity to misuse the power (proprietorship, telecommunication, sales, law enforcement, other industries that allow high worker autonomy etc.). Although increased attempts to control the behavior of employees can reduce negative behavior, it can also decrease the perception of justice and privacy, which limit constructive behavior (Zoghbi-Manrique-de-Lara, 2011). Hence, the level of control and monitoring, depending on the industry type, should be carefully determined. Regarding *company size*, Baucus and Near (1991) suggested that larger firms which have unlimited resources and operate in a dynamic environment, are more likely to engage in illegal behavior.

3.3. Work-based antecedents

Among work-related antecedents of DWB, Chirasa and Mahapa (2012) include unclear job descriptions, work overload, lack of resources and perception to be employed at not respected job, as these factors cause work stress and powerlessness. Additionally, work-related factors can be connected with inadequate job design, including inadequate level of autonomy (too low or too high), unclear performance feedback, low skill variety, role issues, incomplete task identity etc. Individuals who perceive lack of job autonomy might feel that they have less legitimate power to obtain expected results so they are more likely to resort to negative deviance to express negative emotions (Mccardle, 2007). Negative DWB may result from role ambiguity (Walsh, 2014), role erosion or role stagnation. Furthermore, negative DWB is found to be related with the low satisfaction with supervisors (Chullen *et al.*, 2010), with co-workers (Liao *et al.*, 2004) or with the job (Jiang *et al.*, 2017). Beside experiencing incivility from co-worker or superior, employee who face customer incivility can feel dissatisfaction, develop negative job attitudes and consequently engage in negative workplace behavior (Harris and Reynolds,

2004). Additionally, Xiao *et al*. (2018) found that qualitative job insecurity increases organizational and interpersonal deviance, while quantitative job insecurity increases interpersonal deviance and reduces organizational deviance. Certain job characteristics, such as interaction with public, handling guns, supervision or disciplining others, having security functions, making decisions that affect other people's lives, serving alcohol etc. could be reliable predictors of risk for workplace violence and aggression (Leblanc and Kelloway, 2002).

4. CONCLUSION

Negative deviant workplace behavior (DWB) can cause considerable undesirable consequences for the organization, employees and/or other stakeholders. Therefore, it is important to prevent negative workplace deviance through the recognition and elimination of its antecedents. Literature on DWB has yield considerable insight by revealing the large scope on antecedents of workplace deviancy. Based on the literature review, current study presents and explained antecedents of negative DWB within three main categories: organizationally related, individually related and work-related antecedents. While some studies emphasize the importance of individually based antecedents, other points out organizational or work-related factors. It can be concluded that all three category types should be considered when creating favorable work environment aiming to decrease negative workplace deviance. Martinko *et al.* (2002) states that workplace deviance should be perceived through interaction between individual and environmental variables whereby „individual's reasoning about the environment and expected outcomes drive the individual's behavior". By understanding of variables that can contribute to DWB, managers should focus on diminishing those sources that are under their authority. It is helpful to create inspiring work environment based on organizational justice, organizational support for employees, inspiring leadership, adequate organizational structure with organic elements if possible, adequate organizational climate and culture with proper value frame, including diversity tolerance (organizationally related factors) and appropriate change management. Furthermore, managers should assure the existence of adequate work-related factors such as adequate job design, working conditions, clear objectives, adequate quality and quantity of resources, appropriate workload, job security etc. Additionally, individually based variables should be taken into account especially within human resource policy, practice and interventions (employee selection, training, promotion and development). It is important for managers to detect organizational weaknesses and improve them aiming to shape sustainable work surrounding that will demotivate deviant acts. Narayanan and Murphy (2017) found that supportive, rewarding, structured, and risk-free working environment create the base for employees to involve in constructive deviance rather than in destructive. Creating supportive work environment without fertile ground for deviant behavior should help companies in their path to successful performance. Literature reveals that only a few studies have been based on thorough literature review about the antecedents of deviant workplace behavior. Present study offers comprehensive framework based on multi perspective view on complex problems of negative DWB. Therefore, it could be used as a base for further theoretical and empirical research. Previous studies have mostly analyzed certain variables aiming to investigate their connection with DWB. As literature suggest that various antecedents mutually interact, future research should be more focused on investigation of interdependence of various variables and their mutual influence on DWB. Acquiring additional understanding of the nature of workplace deviancy, finding solutions and prevention techniques to diminish incidence of dysfunctional DWB and their negative effects would help to furtherly illuminate this complex problem. The relationship between type of organizational structure (organic v. s. bureaucracy) and workplace deviance should be investigated more deeply to fulfill this literature gap.

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MACROECONOMIC DYNAMICS IN SELECTED COUNTRIES WITH DIFFERENT SHARE OF ISLAMIC BANKING: A VAR ANALYSIS

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ABSTRACT

There is a thinking that economic and financial systems based on Islamic banking and finance are more stable and resilient to macroeconomic shocks in relation to those based on conventional banking and finance systems. The assumption behind this thinking is that economic and financial systems based on Islamic finance, i.e. interest free cosmos, are more fitted to provide stability in times of crisis. Hence, the goal of this paper is to evaluate macroeconomic dynamics in three selected countries with different share of Islamic banking in order to detect possible similarities (or differences) between conventional and Islamic banking based financial systems. The analysis includes the following three countries: the United States of America with prevailing conventional banking system, the Islamic Republic of Iran with prevailing Islamic banking system and the Kingdom of Saudi Arabia with 50:50 ratio of both banking systems. For that purpose, we analysed the relationship between output, prices, money and the exchange rate by using the vector autoregressive (VAR) econometric framework. Obtained results show that there are no significant differences between conventional and Islamic banking based financial systems when relevant macroeconomic variable suffers a shock. These systems rather perform quite similar.

Keywords: *conventional banking, Islamic banking, macroeconomic shocks, macroeconomic stability, VAR analysis*

1. INTRODUCTION

Current financial system begun in 1971 after the Unites States of America (USA/US) dropped out of Bretton Woods Agreement replacing USD backing with government promise to repay, rest of world followed, resulting in fiat financial framework (Kollen Ghizoni, 2013). Consequence of which can be seen in difference between GDP and debt obligation development. Money and economy became debt addicted, captivated by constant expansion concept, but even debt and expansion have boundaries. Fiat currency is issued on back of new debt obligation commitments by governments via central bank or bank credit via conventional banks. If governments aren't able to repay, they can default or create currency to hold up to their commitment (Erian, 2016). From Islamic finance (IF) viewpoint, there isn't debt as such. Only debt existing is for charity (qardhasan) without profit. Financing is possible for all that have assets to back financing as IF is asset based financing. If governments need to borrow, they can't; they can get financing if they have assets for sale or lease. Investors providing financing end up as actual owners of assets backing financing. Governmental debt ceiling rise isn't an option (Alrifai, 2015). Current monetary framework is unsustainable due to compounding debt. New financial structure shell be sound and asset backed, opposed to being based on government promise to ensure trust. Transition to new asset backed financial structure faces debt outstanding larger than assets available to back financing. It would need to become comprehended at global level that large debt volume will never be repaid, aside from private

investors being eager to give governments and central banks a chance to do it away with inflation. For debt remaining there're IF instruments; financial contracts could be reconstructed to become asset backed and obligation upheld as lease to own or operating lease. Governments and central banks can't backstop broad effect of derivatives imploding due to market size. As of IF derivatives don't belong into financial system. What was intended to shield investors from loss and risk, ended up being betting place for banks and investors to speculate, reducing framework solidness. In IF riskless investment doesn't exist. If investors want to profit, they need to take on risk (Alrifai, 2015). New financial framework should evict derivatives, as they're complex instruments able to endanger entire framework. Shariah principles exclude speculation, restriction relying on probability. People would pay a proportion of money for a chance to win a greater proportion of money if outcome is to their benefit. If not, money paid is lost and no value was achieved by transaction; which is in contrast to business endeavour contribution, where peril of risk and loss is current and used for productive reason (asset investment in start-ups). In IF money isn't considered commodity and can't be collateralized, neither asset (Erian, 2016), therefore foreign exchange swaps aren't framework part, which can't finance something that can't be possessed. Investors hoping to profit from currency moves are advised to invest in overseas developments (real estate, smart cities, tech). Applying IF principles to financial framework implies applying ethics. Financial framework must have trust and adhere to strict code of law, reasonable for all. Misleading, exploitative conduct, illicit activities, lax control and fear to prosecute big banks have directed it towards unsustainability. Conventional finance (CF) resulted in rewarding few, while IF benefits community. Wealth aggregation isn't deterred, but providing for less blessed is requirement via zakat. In CF money is made of money, mostly financialization and speculation. In IF risk is shared among partnering investors providing work, finance and expertise to real economic activity, bolstering economy, diminishing disparity, enabling advancement and fulfilling social obligation. In CF lender is worried about interest gathered and wealth accumulation. Business project quality is principal for IF endorsement, no personal credit score or FICO assessment like CF. IF instruments, Shariah rules as set by Usmani (1999) are liable to Shariah board endorsement, following standards defined by Islamic Financial Services Board (IFSB), while Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) sets best practices for financial reporting (IFSB, 2020; AAOIFI, 2020). If savers in CF don't save enough it's viewed as weakness of wealth accumulation, but if savers save more, economy will stagnate due to reduced money velocity. In IF savings accounts are treated equal as investment accounts, sharing risk where return isn't granted, but benefit is shared among bank and bank investors (depositors) due to bank's investment management effort of bridging financial market and real economy; not for advanced exchange transactions utilizing money to make money. Bridging limits decoupling likelihood of financial market to reach unsustainable dimension and crash. In IF investors understand genuine cost or price discovery of assets and are more averse to invest into inflated assets consequentially distancing themselves from economic bubbles build-up and busts. Financial company screening by Islamic investment funds suspends company investment due to high-leverage ratio. Contributing to investment, following IF standards leads to prudent decisions, long-term investments with smaller, less risky returns. It denies financing unsafe ventures, discourages accessibility of such products/services, their consumption and environment devastation, progressing stable growth, healthy society and economy. In accordance with the above, the goal of this paper is to evaluate macroeconomic dynamics in selected countries with different share of Islamic banking in order to detect possible similarities (or differences) between conventional and Islamic banking based financial systems and to see which system is more stable and resilient to macroeconomic shocks when relevant macroeconomic variable suffers a shock.

The rest of the paper is organized as follows. Section 2 provides a brief literature overview. Data, methodology and results are presented in Section 3, while Section 4 gives concluding remarks.

2. LITERATURE REVIEW

Price stability is one of the most important (macro)economic and monetary policy goal accepted by many central banks around the world. Besides maintaining price stability, there are other goals such as; high employment, economic growth, financial markets, interest rates and foreign exchange market stability (Mishkin (2010) and Blanchard (2007)). For example, maintain price stability is incorporated in monetary policies of the European Central Bank, the Federal Reserve System, the Bank of England, the Bank of Japan etc. (Lovrinović and Ivanov, 2009). Therefore, the stability of money, its purchasing power and intervalutary value is considered a fundamental precondition of economic development (Božina, 2012). In line with the goal of the paper, examples include the following countries: the United States of America, the Islamic Republic of Iran and the Kingdom of Saudi Arabia. Namely, monetary policies of the Central Bank of the Islamic Republic of Iran and the Saudi Central Bank are closely related to the exchange rate policy aiming internal price stability (The Central Bank of the Islamic Republic of Iran (2020) and The Saudi Central Bank (2020)). On the other side, monetary policy of the Federal Reserve System is to promote maximum employment, stable prices, and moderate long-term interest rates (The Federal Reserve System, 2020). Therefore, in the literature review the focus will be on price stability as a prerequisite of stabile economic development and the common policy goal of all selected countries. This allows additional comparability in detecting possible similarities or differences between their economic and financial systems. Despite the fact that the emphasis in the literature review is placed on price stability, the empirical analysis will include other relevant macroeconomic variables and their common dynamics. Sims (1980) developed VAR model consisting of money (M1), real GNP, unemployment, wages, price level and import prices for economies of Germany (1958-76) and US (1949-75). Main founding being that '... in US money innovations were the main source of variation in wages, prices and import prices. Both countries responded same to money innovations with rise of real GNP, decline of unemployment and rise in wage lasting 2-3years. Peak effect of money innovations on real GDP was greater for US than Germany'. Real GNP innovations for US weren't associated with substantial inflation, like in Germany. Unemployment innovation was followed by Fed's expansionary reaction, rise in real GNP and decline in unemployment. Wage innovations were larger in Germany with accommodating policy response, unlike in US. Sustained negative movement in real GNP was smaller in Germany, than US. Price innovations were of negligible importance in US, while in Germany they were major shock source resulting in large sustained real GNP decline, persistent decline of real wages, despite accommodating money supply. Import price innovations had larger more persistent real effects in Germany, with peak effect almost matching price innovations and exceeding peak effect of money innovations. Germany and US had common responses regarding; money innovations that temporarily increased real wages and real GNP, reduced unemployment, followed by opposite swing. Real GNP innovations were similar magnitude and decayed rapidly in their real effects. Wage innovations were followed by sustained drop in real GNP. Import price innovations were followed by movements of same sign in prices and wages. Price, wage and import price innovations were followed by decline in real GNP. Real variables in Germany as smaller and more open economy according to Sims should show greater sensitivity to such shocks than real variables in US. Germany's money supply tended temporarily to accommodate such shocks more than US money supply, but German money supply tended to return more quickly to its trend and wasn't used to counteract unemployment. Main source of feedback into money supply in US were unemployment innovations and in Germany price innovations.

Regarding US economy, according to Blanchard and Quah (1989) demand side shocks and monetary policy shocks have no long-run effect on output while supply side shocks do. Authors suggest using theoretically inspired long-term restrictions to identify shocks and impulse responses. They assume that nominal shocks have no long-term influence on level of real exchange rate. Based on model authors conclude that nominal shocks had very little influence on real exchange rate and modest not predominant influence on nominal exchange rate. Awokuse and Bessler (2003) replicated US economy VAR results of Sims model (1986) using real GNP, real business investment, GNP price deflator, M1, unemployment and treasury bill rates, identification was achieved using Cholesky factorization, with identical results to Sims; 1. Positive output innovations: increased output, investment, interest rates, but decreased unemployment, 2. Labor supply innovation in labor force participation rate (unemployment shock): had positive effect on output with steady increase in first year, thereafter remaining at higher level, unemployment rose temporarily and returned to normal in two years, 3. Positive investment innovations: response was similar to output, growth in prices remained moderate, money stock smoothly increased remaining at higher level, short term interest rate remained constant, initially declined but returned to equilibrium levels. 4. Positive money innovations: real variables (income, investment, unemployment) showed short run responses non-persistent long term, money and prices showed persistent long run response including delayed positive response of prices and increase of money supply. 5. Positive shock of interest rates yields: declined output returning to normal level in 3years, prices temporarily increased in 1.5 years and declined persistently, strong persistent negative response of money stock, momentarily unemployment decline, followed by sharp 3year rise. Their second model estimated contained contemporaneous causal ordering of model innovations using TETRAD II tools for causal modeling by Richard Scheines et al. representation in terms of Directed Acyclic Graph (DAG) which determined Sims' six variable model (1986) not rich enough to provide unambiguous ordering at usual statistical significance level, thus near 30% significance level clear structural ordering was established, where impulse response function were found similar to Cholesky responses found by Sims (1986) where responses appeared broadly consistent with monetarist view of economy with adaptive expectations with no hyperinflation. According to Bernanke, Boivin and Eliasz (2004) a monetary shock in US corresponds to 25 basis point innovation of federal funds rate. Generally expected responses include; following a contractionary monetary policy shock, real activity measures decline, prices eventually decrease and money aggregates decline. In inflation targeting era monetary policy shock is an increase in policy rate that has no permanent effect on output. According to conventional economic theory, monetary contractions should raise federal funds rate, lower prices, decrease non-borrowed reserves and reduce real output. Based on US data Uhlig (2005) assumes that a contracting monetary policy shock doesn’t lead to; increases in process, increases in non-borrowed reserves and decreases in federal funds rate. According to Uhlig effects of monetary policy on output is ambiguous effect on real GDP around zero and long term monetary neutrality with prices to monetary policy of zero to negative. Uhlig identified liquidity issue when identifying monetary policy shocks as surprise increases in money stock, interest rates tend to decrease, not increase and price issue where after a contracting monetary policy shock, even with interest rates increasing, money stock decreases and inflation increases, rather than declining. Floyd (2005) developed US economy VAR model with de-trended log real GDP, YoY rate of growth of GDP deflator, interest rate on 90-day commercial paper and deviation of log base money from trend. He justified choice of using US economy as '...US authorities pay little attention to effects of their policies on the rest of the world and the country is large enough that changes in the domestic money supply and output can have significant effect on world levels of these variables. Moreover to the extent that other countries are concerned about the effects of US monetary shocks on their exchange rates with respect to USD, and adjust their monetary policies to offset

these effects, their monetary conditions will mimic those in US, whose authorities will then effectively control world monetary policy' (Floyd, 2005). In his model an upward shock to interest rate results in real GDP decline, increase of base money accompanied during early subsequent periods by increase in inflation rate, which becomes negative after 7 quarters. Expansion of base money, which only the Fed can do, caused short term interest rates rise and real GDP decline, while inflation rate first increased, only to become negative thereafter. Authorities can affect interest rates by varying base money stock, which is the only instrument over which the monetary authority has complete control. The fact that base money increases immediately in response to upward shock to short-term interest rate suggests that interest rate increase may occurred as result of positive shock to money demand with Fed leaning slightly against wind expanding base money. Fed could reduce money base and deliberately raise short-term interest rates or respond to interest rate changes from other sources, by varying base money endogenously. Fed might not observe inflation rate and level of output directly as current estimates of these variables are subject to substantial later revision. Upward real GDP shock increased short-term interest rates and inflation rate and money base slightly subsequently declined. Floyd's concluding issues include that lagged values of base money appear to have no effect on interest rate, while lagged values of interest rate affect the current level of monetary base. Together with lagged levels of interest rate significantly related to current levels of other variables, led Floyd to leave base money out of VAR, treating interest rate as instrument of monetary policy. Conventional macroeconomic theory preconditions that increase in interest rate should reduce output in the same period with minimal effect on current output and inflation rate, with inflation rate expected to change with wage and price adjustments responding in later quarters. Conventional theory expects that short-term interest rate should respond to current changes in base money, current output and price level and inflation rate and that central bank would adjust base money in response to current period output (actually employment), short-term interest rate and inflation. According to Federal Reserve in US when CPI increases central bank's funds rate tends to increase. Consistent with raising interest rates to control for inflation. When funds rate increases, there's modest increase in inflation. Consistent with central bank's rising rates to control inflation which tends to persist for several quarters. When inflation increases, unemployment tends to rise modestly and funds rate tends to increase. Significant increases in CPI within short time frame indicate period of inflation and significant decrease in CPI within short time frame indicate period of deflation (Fred, St. Louis Fed, 09/2019). Regarding Iranian economy, Nayini (1997) used Ordinary Least Squares method to study inflationary trend and effect of monetary policy on inflation in Iran for period 1959-1995. For modelling, he used inflation, monetary base, time trend, exchange rate changes in black market, gross product without oil and one-lag inflation. He found that exchange rate fluctuations have significant impact on inflation and estimated that expansion of monetary base has greater effect on inflation in Iran. Abasinejad and Tashkini's (2004) research using Autoregressive Distributed Lag approach showed that GDP, imported goods price index, liquidity and exchange rate are the most significant factors contributing to inflation in Iran. Bonato (2008) identified long run relationship between price level and money, interest rate, real output and exchange rate for Iran, with money having prominent role driving inflation, short and long term based on error correction model 1988-2006. Samimi and Jamshidbaygi (2011) and Samimi, Kenari and Ghajari (2013) research implied that increase in real GDP could make money available for transaction purposes which would be absorbed in economic activities. Increase of price level reduces value of money stock, thus demand for money gets reduced. They highlight that when there are inflationary expectations Iranians try to switch out of money into real estate. They show that when REER increases, Iranian currency depreciates and Iranians increase demand for foreign currency to avoid reduction of purchasing power, which reduces demand for domestic currency.

Tafti (2012) used VAR system analysis and concluded that liquidity, import price index and real GDP determine inflation in Iran. Other authors reached similar conclusions; Pesaran (1998) pointed out that Iran due to Asian currency crises 1997, short on foreign currency, substantially increased exchange rate which raised inflation to 50%, Celasun and Goswami (2002) found that in period 1990-2002 inflation and depreciation of parallel market exchange rate proxy opportunity cost of holding money and found strong impact of money and exchange rate in short run inflation in Iran, Bahmani-Oskooee (1995) found that inflation in Iran is owed to price controls and indirect government subsidies, Becker (1999) used trend model including prices, exchange rate, real output in period 1959-1997 and determined that monetary shocks have permanent effects on price level and exchange rate of Iran, Alavirad and Athawale (2005) used autoregressive distributive lag and error correction model, period 1963-1999 and identified long-term relationship between prices and budget deficit; and that short term money and budget deficit affect inflation in Iran. Al-Bassam (1999) examined sources of inflation in Saudi using changes in exchange rate and US short term interest rate, nominal money supply, real income (GDP) and lagged price level indicated money supply as source of inflation. Hassan (2008) used co-integration and vector error correction model containing nominal effective exchange rate, price level in trading partners, money supply, GDP, and oil prices to determine inflation source which was trading partner price level. Ramady (2009) used money supply, stock price index, oil prices, US interest rate and exchange rate finding that money supply, interest rate and domestic currency depreciation against other currencies are main source of inflation. Altowaijri (2011) used money supply, interest rate, foreign prices and exchange rate to determine that inflation source was foreign price and exchange rate. Al-Qenaie and Al-Shammari (2015) compared oil-exporting countries Algeria, Iran, Nigeria, Saudi and Venezuela to determine their main source of inflation. Their model included: population, government spending, oil prices, money supply, interest rate and exchange rate. For Saudi inflation source was government expenditure and oil prices, for Iran high exchange and interest rate, Algeria and Nigeria exchange rate and for Venezuela high interest rate, money base expansion, oil prices and population. Nazer (2016) studied impact of money supply, oil prices, import values, US interest rate and real GDP on interest in Saudi determining money supply and import values as source of inflation.

3. DATA, METHODOLOGY AND RESULTS

The main goal of this study is to analyse macroeconomic dynamics in selected countries with different share of Islamic banking in order to define possible similarities (or differences) between conventional and Islamic banking based financial systems. As already stated, the analysis includes the following three countries: the United States of America with prevailing conventional banking system, the Islamic Republic of Iran with prevailing Islamic banking system and the Kingdom of Saudi Arabia with 50:50 ratio of both banking systems. For analysis purposes, a vector autoregressive (VAR) model is estimated. The VAR methodology was introduced by Sims (1980) and usually consists of Granger causality tests, forecast error variance decomposition and impulse response functions analysis. Since VAR models will be estimated with variables in levels, i.e. with nonstationary time series, it is necessary to determine the degree of integration of time series and the existence of cointegration. Namely, it is known that models with nonstationary time series can lead to spurious results (Österholm, 2003). Therefore, to test the degree of integration of time series the extended Dickey-Fuller ADF test (Dickey and Fuller, 1979), Phillips and Perron PP test (Phillips and Perron, 1988) and KPSS test (Kwiatkowski, Phillips, Schmidt and Shin, 1992) are considered while in order to test the existence of cointegration the Johansen cointegration test (Johansen, 1991, 1995) is applied.

Based on these assumptions, the following unrestricted VAR model with variables in levels is estimated:

$$y_t = A_1 y_{t-1} + \cdots + A_p y_{t-p} + \cdots + CD_t + u_t, \quad (1)$$

where $y_t=(y_{1t},...,y_{Kt})$ is a vector of K endogenous variables, D_t is a vector of deterministic variables including constant, trend and specified dummy variables, u_t is K-dimensional vector of residuals, while A and C are matrices of parameters of the model[1]. All time series are expressed as indices in logarithms and to eliminate the influence of seasonal factors are seasonally adjusted[2].

3.1. The United States of America

Quarterly data for USA include real GDP (RGDP), implicit price deflator[3] (DEF), money supply (M1), real effective exchange rate (REER) and cover the period from March 1992 to September 2016. Data are taken from the International Financial Statistics (2017) database. Results of the unit root tests are shown in Table 1 in the Appendix. Results suggest that all series are integrated of order I(1) as their first differences are stationary. Performed Johansen cointegration tests indicate that the long-run relationship between the variables exist[4]. On these assumptions, the unrestricted VAR model is estimated whereby the vector of endogenous variables includes real GDP, deflator, money and exchange rate while the vector of exogenous variables includes constant, trend and several dummy variables. Number of lags in the VAR model is determined using standard information criteria (AIC, BIC, HQC). Criteria indicate that the optimal number of lags in the model is one. VAR model diagnostic tests in Table 2 in the Appendix include test for autocorrelation, normality and ARCH effects and suggest that the model is adequately estimated with acceptable characteristics. In order to examine the causality between variables Granger causality tests are applied. Test results are shown in Table 3 in the Appendix. The results indicate that prices and exchange rate cause real GDP while real GDP, money and exchange rate cause prices. Real GDP and prices cause money while real GDP, prices and money cause exchange rate. The dynamic interdependence between variables is analyzed through the forecast error variance decomposition whereby the results are presented in the Table 4 in the Appendix. Variance decomposition results indicate that prices had the greatest impact on the variability of real GDP while real GDP and exchange rate had the greatest impact on the variability of prices. Real GDP had the greatest impact on the variability of money whereby prices had the greatest impact on the variability of the exchange rate. In order to analyze influence of variables order change, variance decomposition is performed with reverse order of variables in the model. The results are similar[5]. In order to track each endogenous variable respond over time to shock in that variable and other endogenous variables, the impulse response functions are analysed. Figure 1 shows the impulse responses of the real GDP, deflator, money and exchange rate.

Figure following on the next page

[1] In the analysis, Gretl (Cottrell and Lucchetti, 2020) econometric software is used.
[2] Using the Arima X-12 method.
[3] As a proxy for consumer price index.
[4] The results are not shown in order to preserve space.
[5] The results are not shown in order to preserve space.

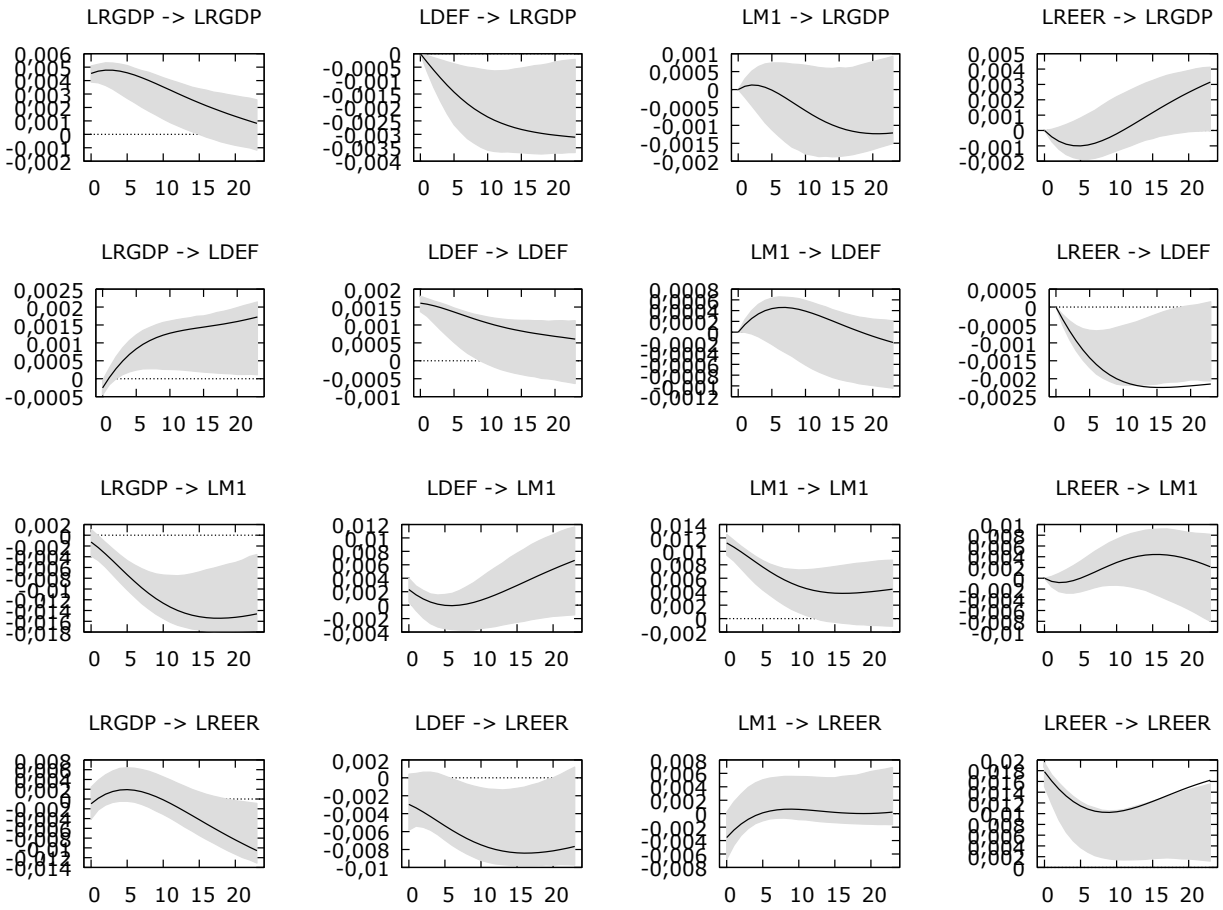

Figure 1: VAR impulse responses to Cholesky one S.D. innovations with confidence interval (Source: Authors calculations. Note: "L" indicates logarithm of the variable)

It is visible that an increase in real GDP increase prices, decreases money and causes exchange rate depreciation while an increase in prices decreases real GDP, increases money and causes exchange rate depreciation. An increase in money decreases real GDP, increases prices and causes exchange rate depreciation. Finally, exchange rate appreciation increases real GDP, decreases prices and increases money.

3.2. The Islamic Republic of Iran

Quarterly data for Iran include real GDP (RGDP), consumer price index (CPI), money supply (M1), exchange rate (EXCH)[6] and cover the period from March 2002 to December 2010. Data are taken from the Central Bank of the Islamic Republic of Iran (2017) database. Results of the unit root tests are shown in Table 1 in the Appendix. Unit root tests indicate that there is a possibility that prices and money are integrated of order I(2). However, further insight into their first differences suggests that they are integrated of order I(1). Performed Johansen cointegration tests indicate that the long-run relationship between the variables exist[7]. Based on that, the unrestricted VAR model is estimated whereby the vector of endogenous variables includes real GDP, prices, money and exchange rate while the vector of exogenous variables includes constant, trend and several dummy variables. As before, the number of lags in the VAR model is determined using standard information criteria (AIC, BIC, HQC). Criteria indicate that the optimal number of lags in the model is one.

[6] US Dollar/Iranian Rial.
[7] The results are not shown in order to preserve space.

VAR model diagnostic tests in Table 2 in the Appendix suggest that the model is adequately estimated with acceptable characteristics. Granger causality tests are shown in Table 3 in the Appendix. The results indicate that prices and exchange rate cause real GDP while real GDP and money cause prices. Prices causes money while real GDP and money cause exchange rate. The results of the forecast error variance decomposition are presented in the Table 4 in the Appendix. Variance decomposition results indicate that prices and money had the greatest impact on the variability of real GDP while real GDP and money had the greatest impact on the variability of prices. Real GDP and prices had the greatest impact on the variability of money whereby real GDP and prices had the greatest impact on the variability of the exchange rate. In order to analyze influence of variables order change, variance decomposition is performed with reverse order of variables in the model. The results are quite similar[8]. As before, to track each endogenous variable respond over time to shock in that variable and other endogenous variables, the impulse response functions are analysed. Figure 2 shows the impulse responses of the real GDP, prices, money and exchange rate.

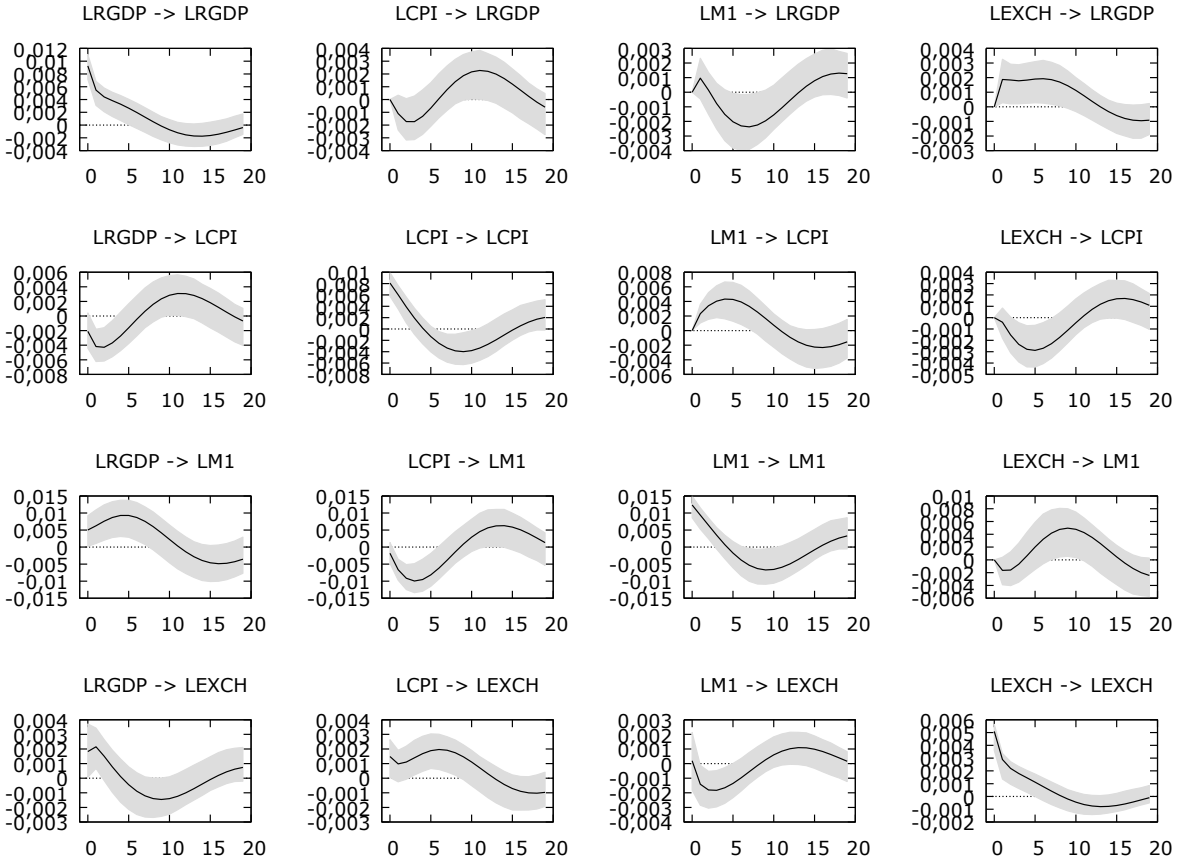

Figure 2: VAR impulse responses to Cholesky one S.D. innovations with confidence interval (Source: Authors calculations. Note: "L" indicates logarithm of the variable)

It is visible that an increase in real GDP initially decreases and after that increases prices, increases money and causes exchange rate depreciation while an increase in prices initially decreases real GDP, decreases money and causes exchange rate appreciation. An increase in money decreases real GDP, increases prices and causes exchange rate depreciation. Finally, exchange rate depreciation increases real GDP, decreases prices and increases money.

[8] The results are not shown in order to preserve space.

3.3. The Kingdom of Saudi Arabia

Quarterly data for Saudi Arabia include industrial production index (Y)[9], consumer price index (CPI), money supply (M1), real effective exchange rate (REER) and cover the period from March 1993 to September 2016. Data are taken from the International Financial Statistics (2017) database. Results of the unit root tests are shown in Table 1 in the Appendix and suggest that all series are integrated of order I(1) as their first differences are stationary. Performed Johansen cointegration tests indicate that the long-run relationship between the variables exist[10]. Based on these assumptions, the unrestricted VAR model is estimated whereby the vector of endogenous variables includes output, prices, money and exchange rate while the vector of exogenous variables includes constant and several dummy variables. Number of lags in the VAR model is determined using standard information criteria (AIC, BIC, HQC). Criteria indicate that the optimal number of lags in the model is two. Diagnostic tests in Table 2 in the Appendix generally suggest that the model characteristics are acceptable. Granger causality tests results are shown in Table 3 in the Appendix. The results indicate that none of the variables causes output while exchange rate causes prices. Output and exchange rate cause money while prices and money cause exchange rate. Variance decomposition results are presented in the Table 4 in the Appendix. Results indicate that exchange rate had the greatest impact on the variability of output while output and exchange rate had the greatest impact on the variability of prices. Output had the greatest impact on the variability of money whereby output had the greatest impact on the variability of the exchange rate. In order to analyze influence of variables order change, variance decomposition is performed with reverse order of variables in the model. The results are similar[11]. The impulse response functions are analysed and shown in Figure 3.

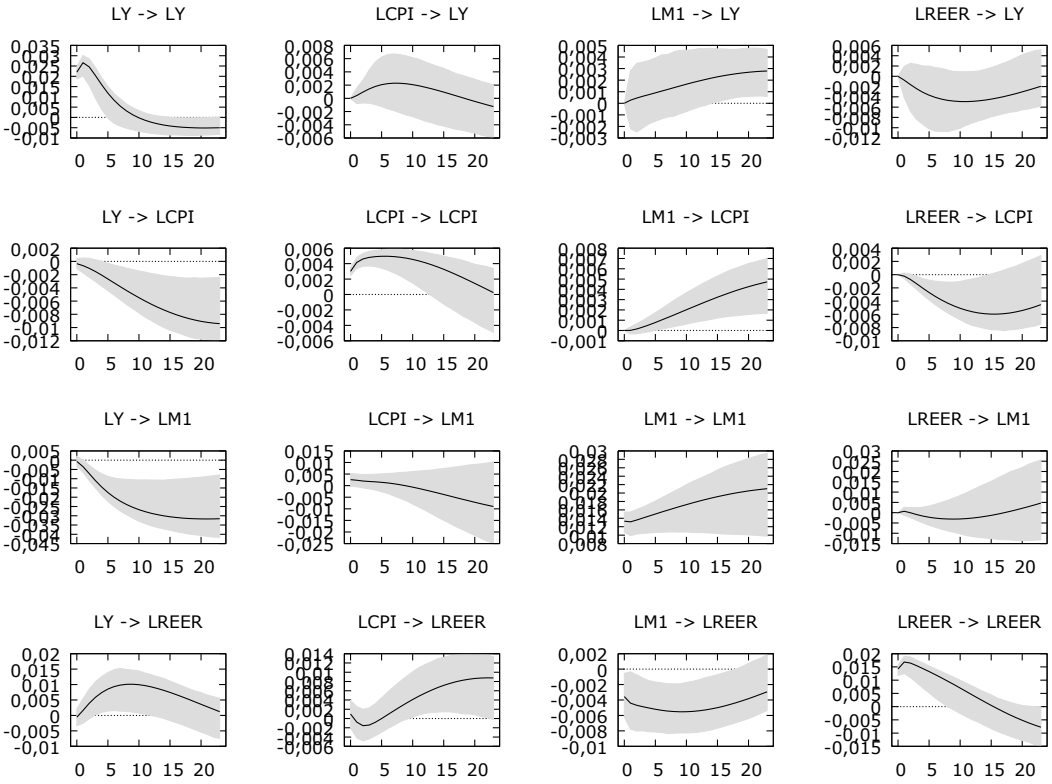

Figure 3: VAR impulse responses to Cholesky one S.D. innovations with confidence interval (Source: Authors calculations. Note: "L" indicates logarithm of the variable)

[9] As a proxy for GDP.
[10] The results are not shown in order to preserve space.
[11] The results are not shown in order to preserve space.

It is visible that an increase in output decreases prices and money causing exchange rate appreciation while an increase in prices increases output, decreases money and causes exchange rate appreciation. An increase in money increases output and prices causing exchange rate depreciation. Finally, exchange rate appreciation decreases output and prices and increases money. Altogether, by comparing the results obtained from the Granger causality tests, it is visible that the results between countries are quite similar. Thereby, the similarity in casual relations is much greater between Iran and USA in relation to Saudi Arabia and USA. The number of casual relations between the variables is the highest in USA, giving the US economic policy makers better opportunities in managing the macroeconomic policy. Additionally, the highest number of casual relations in all countries is observed when the exchange rate is the dependent variable. By comparing the results from the variance decomposition for all countries, it is noticeable that output and prices had the highest impact on the variability of other variables. By comparing the results from the impulse responses analysis for all countries, it is noticeable that the results are quite similar. Generally, an increase in output increases prices, decreases money and causes exchange rate appreciation. An increase in prices decreases output and money and causes exchange rate depreciation. An increase in money generally decreases output, increases prices and causes exchange rate depreciation. Finally, exchange rate appreciation generally decreases output and prices and increases money.

4. CONCLUSION

The aim of this paper was to test the thinking that economic and financial systems based on Islamic banking and finance are more stable and resilient to macroeconomic shocks in relation to those based on conventional banking and finance systems. The analysis covered three selected countries: the United States of America with prevailing conventional banking system, the Islamic Republic of Iran with prevailing Islamic banking system and the Kingdom of Saudi Arabia with 50:50 ratio of both banking systems. The dynamic relationship between output, prices, money and the exchange rate for the stated countries is tested by using the vector autoregressive (VAR) econometric framework. The results of VAR analysis that consists of Granger causality tests, forecast error variance decomposition and impulse responses function showed that there is not too much of a difference between conventional and Islamic finance financial system or economy as a whole. A per the data deployed countries with Islamic finance were not more resilient to shocks, they rather performed quite similar. The analysis has some shortcomings. For example, only three countries were selected for the analysis, the estimated period is relatively short, there is a problem with the availability of the data etc. Despite the shortcomings, this analysis can serve as a good starting point for future research in the field of stability of different financial and economic systems.

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APPENDIX

	Variable and test	Level		First difference	
		Constant	Constant and trend	Constant	Constant and trend
USA	ADF test	p-value			
	LRGDP	0,1329	0,8632	0,0010	0,0000
	LDEF	0,7216	0,9431	0,0000	0,0000
	LM1	0,9998	0,9790	0,0028	0,0017
	LREER	0,3903	0,7174	0,0000	0,0000
	PP test	p-value			
	LRGDP	0,0806	0,8585	0,0000	0,0000
	LDEF	0,6945	0,9206	0,0000	0,0000
	LM1	0,9999	0,9946	0,0000	0,0000
	LREER	0,4466	0,7594	0,0000	0,0000
Iran	ADF test	p-value			
	LRGDP	0,3845	0,3088	0,0000	0,0000
	LCPI	0,9790	0,3793	0,0619	0,2024
	LM1	0,8090	0,4524	0,0560	0,1752
	LEXCH	0,8521	0,3936	0,0000	0,0003
	PP test	p-value			
	LRGDP	0,2285	0,3416	0,0000	0,0000
	LCPI	0,9614	0,6605	0,0681	0,2201
	LM1	0,8041	0,7116	0,0451	0,1410
	LEXCH	0,8677	0,4138	0,0000	0,0001
Saudi Arabia	ADF test	p-value			
	LY	0,3426	0,1114	0,0000	0,0000
	LCPI	0,9927	0,9112	0,0117	0,0000
	LM1	0,9985	0,1422	0,0000	0,0000
	LREER	0,5414	0,9395	0,0000	0,0000
	PP test	p-value			
	LY	0,5791	0,2849	0,0000	0,0000
	LCPI	0,9993	0,9658	0,0000	0,0000
	LM1	0,9992	0,1883	0,0000	0,0000
	LREER	0,6349	0,9856	0,0000	0,0000

Table 1: Unit root tests
(Source: Authors calculations. Note: "L" indicates logarithm of the variable. For the implementation of ADF and PP test, the Schwarz information criterion has been implemented.)

USA	Serial correlation (lags= 4)	Rao F=1,356, F(64, 291), p-value=0,0495
	Normality: Doornik-Hansen	Chi-square(8)=10,246, p-value=0,2482
	ARCH (lags=4)	LM=406,072, df(400), p-value=0,4063
Iran	Serial correlation (lags= 4)	Rao F=1,866, F(64, 45), p-value=0,0145
	Normality: Doornik-Hansen	Chi-square(8)=8,24975, p-value=0,4095
	ARCH (lags=3)	LM=303,657, df(300), p-value=0,4302
Saudi Arabia	Serial correlation (lags= 4)	Rao F=1,528, F(64, 256), p-value=0,0116
	Serial correlation (lags= 3)	Rao F=1,123, F(48, 267), p-value=0,2803
	Normality: Doornik-Hansen	Chi-square(8)=18,8763, p-value=0,4095
	ARCH (lags=4)	LM=425,016, df(400), p-value=0,0155

Table 2: Model diagnostic tests
(Source: Authors calculations)

USA	F-test (1, 89)	p-value	Iran	F-test (1, 27)	p-value
LRGDP cause LRGDP	1462,3	0,0000	LRGDP cause LRGDP	9,255	0,0052
LDEF cause LRGDP	10,446	0,0017	LCPI cause LRGDP	7,1961	0,0123
LM1 cause LRGDP	0,018266	0,8928	LM1 cause LRGDP	1,8036	0,1905
LREER cause LRGDP	3,746	0,0561	LEXCH cause LRGDP	3,2874	0,0809
LRGDP cause LDEF	36,092	0,0000	LRGDP cause LCPI	7,5574	0,0105
LDEF cause LDEF	1253,7	0,0000	LCPI cause LCPI	161,94	0,0000
LM1 cause LDEF	6,0063	0,0162	LM1 cause LCPI	15,254	0,0006
LREER cause LDEF	20,617	0,0000	LEXCH cause LCPI	0,18751	0,6684
LRGDP cause LM1	16,933	0,0001	LRGDP cause LM1	0,84436	0,3663
LDEF cause LM1	5,8562	0,0176	LCPI cause LM1	33,805	0,0000
LM1 cause LM1	2484,8	0,0000	LM1 cause LM1	95,747	0,0000
LREER cause LM1	1,1743	0,2814	LEXCH cause LM1	1,2036	0,2823
LRGDP cause LREER	4,0009	0,0485	LRGDP cause LEXCH	4,531	0,0426
LDEF cause LREER	3,0296	0,0852	LCPI cause LEXCH	0,062812	0,8040
LM1 cause LREER	5,1137	0,0262	LM1 cause LEXCH	14,44	0,0007
LREER cause LREER	353,82	0,0000	LEXCH cause LEXCH	21,406	0,0001
Saudi Arabia	F-test (2, 71)	p-value			
LY cause LY	190,37	0,0000			
LCPI cause LY	0,62238	0,5396			
LM1 cause LY	0,032427	0,9681			
LREER cause LY	0,31958	0,7275			
LY cause LCPI	1,1828	0,3124			
LCPI cause LCPI	6182,5	0,0000			
LM1 cause LCPI	0,14064	0,8690			
LREER cause LCPI	8,3722	0,0005			
LY cause LM1	12,493	0,0000			
LCPI cause LM1	0,16341	0,8496			
LM1 cause LM1	5494,1	0,0000			
LREER cause LM1	3,0053	0,0559			
LY cause LREER	2,011	0,1414			
LCPI cause LREER	4,9206	0,0100			
LM1 cause LREER	3,3896	0,0393			
LREER cause LREER	423,75	0,0000			

Table 3: Granger causality tests (F-tests of zero restrictions)
(Source: Authors calculations. Note: "L" indicates logarithm of the variable)

Table following on the next page

USA					Iran				Saudi Arabia			
Decomposition of variance for LRGDP					Decomposition of variance for LRGDP				Decomposition of variance for LY			
Period	LRGDP	LDEF	LM1	LREER	LRGDP	LCPI	LM1	LEXCH	LY	LCPI	LM1	LREER
4	97	1	0	2	89	4	1	6	99	0	0	0
8	91	6	0	3	77	4	8	11	97	1	0	2
12	85	12	0	2	67	10	12	12	93	1	0	6
16	77	19	1	3	65	13	11	11	89	1	1	8
20	67	24	3	6	63	13	13	12	87	1	2	9
Decomposition of variance for LDEF					Decomposition of variance for LCPI				Decomposition of variance for LCPI			
Period	LRGDP	LDEF	LM1	LREER	LRGDP	LCPI	LM1	LEXCH	LY	LCPI	LM1	LREER
4	3	83	2	12	25	56	15	4	5	91	0	3
8	11	53	3	33	19	41	29	11	16	67	1	16
12	16	36	3	45	21	45	24	9	27	45	3	24
16	19	27	2	52	24	42	24	10	36	31	5	28
20	22	22	2	55	23	41	26	11	43	22	7	27
Decomposition of variance for LM1					Decomposition of variance for LM1				Decomposition of variance for LM1			
Period	LRGDP	LDEF	LM1	LREER	LRGDP	LCPI	LM1	LEXCH	LY	LCPI	LM1	LREER
4	9	2	89	0	27	32	40	1	20	2	78	0
8	32	1	67	0	38	33	26	3	48	1	50	1
12	53	1	44	2	34	28	30	8	60	0	39	1
16	65	1	30	4	32	32	28	8	64	1	35	1
20	70	3	23	4	33	32	27	8	66	1	33	0
Decomposition of variance for LREER					Decomposition of variance for LEXCH				Decomposition of variance for LREER			
Period	LRGDP	LDEF	LM1	LREER	LRGDP	LCPI	LM1	LEXCH	LY	LCPI	LM1	LREER
4	0	5	2	92	16	9	13	62	5	1	7	88
8	1	11	1	87	14	21	15	49	17	0	9	74
12	1	17	1	81	19	25	14	43	25	2	10	62
16	2	21	1	77	19	23	17	41	29	6	12	53
20	5	22	1	73	19	25	17	39	29	12	12	47

Table 4: Forecast error variance decomposition (in %)
(Source: Authors calculations. Note: "L" indicates logarithm of the variable)

FINANCIAL INSTITUTIONS EFFICIENCY: THEORY, METHODS AND EMPIRICAL EVIDENCE

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ABSTRACT

Financial institutions have an important role in economic growth of a country. Among financial institutions, a crucial role falls on banks whose activities as financial intermediaries are unavoidable in modern economics. Another, perhaps less significant but nonetheless important role falls upon insurance companies whose activities at its core deal with risk pooling and risk diversification. To ensure stability of financial systems and further economic development, it is necessary that financial institutions operate efficiently. This paper deals with the theoretical background, methods and empirical evidence on financial institutions efficiency. Traditionally, financial indicators (ratios of accounting information from financial statements) are used as measures of performance – efficiency. Financial indicators are simple and easy to use methods for measuring efficiency such as: return on assets (ROA), return on equity (ROE) and efficiency ratio (ER) to name a few. However, financial indicators are limited in information that they provide by producing an absolute number on efficiency. Their main drawback is that they do not indicate sources of inefficiency. There are several concepts of efficiency found in literature, as well as different approaches in measuring efficiency. The goal of applying complex methods in measuring efficiency is to eliminate the drawbacks of traditional efficiency estimation and provide more information to end users (academics, government institutions (regulatory and supervisory) and firms' management). These modern approaches use complex methods, such as stochastic models and linear programming in measuring efficiency, while mostly used are parametric and non-parametric methods. The most popular parametric model is Stochastic Frontier Approach (SFA) while the most popular non-parametric model is Data Envelopment Analysis (DEA). In this paper, we study the theory, concepts, frameworks and methods on efficiency estimation of financial institutions. Additionally, we research current empirical evidence on banking and insurance efficiency while analyzing differences in approaches between different types of financial institutions. The research focuses on DEA as a linear programming method that is widely used in measuring efficiency in banks and insurance companies. Several papers study DEA in measuring efficiency, evaluating its drawbacks and advantages as a sophisticated method against traditional ratio method (financial indicators).
Literature review of empirical evidence indicates that more complex, sophisticated measures of efficiency provide more insight in the sources of inefficiencies in financial institutions. Modern approaches that involve activities characteristic to specific financial institutions, such as risk management in insurance companies and banks, propose themselves as a promising approach in a more precise measurement of efficiency.

Keywords: *banking efficiency, Data Envelopment Analysis, efficiency analysis, financial intermediation, insurance efficiency*

1. INTRODUCTION

Financial institutions such as banks and insurance companies through financial and insurance services carry an important role in economic growth of a country. Banks are the most prominent financial institutions that nowadays provide a whole slew of financial services, but financial intermediation is still the core of the banking business. Banks today truly dominate modern financial systems. However, insurance companies still bear an important role in activities such as risk exposure and risk management that are the core of insurance business. It is necessary that financial institutions operate efficiently in order to secure further stability of financial systems and economic growth. Efficiency can be defined in simple terms such as: *"to increase the quantity of outputs using the same quantity of inputs; or to produce the same quantity of outputs while employing smaller quantities of inputs"*. From this definition, it is clear that efficiency can be observed from two standpoints: profit and cost efficiency. This paper deals with the theory, concepts, frameworks and methods on efficiency estimation of financial institutions. Theoretical framework for efficiency is provided from the synthesis of the production theory and neoclassical production theory where financial institutions are observed as economic units. These economic units or firms transfer inputs into outputs through economic activities (in our case "production" of financial products and services). Traditionally, measuring efficiency of financial institutions is based on simple ratios of accounting information. In other words, financial indicators are the basis for analysis of performance and efficiency of firms. Financial indicators such as return on assets (ROA), return on equity (ROE), efficiency ratio (ER) are common in efficiency analysis since they are calculated from financial statements data that is widely available. On one hand, the indicators are easy to understand and interpret since they are calculated as simple ratios of accounting data. On the other hand, the indicators produce an absolute number that can only give partial information on efficiency. Therefore, against their advantages (simplicity and availability of data) one main drawback of ratio analysis is that the attained results do not indicate sources of inefficiency. In order to provide more information and eliminate limitations from traditional efficiency estimation, complex methods in measuring efficiency are used. The information on inefficiency of financial institutions can be useful to several end users. In academics, the attained information can be useful by deepening knowledge on efficiency of financial institutions. For example, how different approaches in measuring efficiency affect the results. This new information can also affect further development of new approaches, methods and models. For regulatory and supervisory institutions, the attained information can affect government policy by addressing potential effects of deregulation, reregulation, mergers and acquisitions, and ways to improve the stability of the financial system. For firms' management the attained information can indicate places of inefficiencies and provide strategies to eliminate them. Furthermore, it can stimulate practices associated to high efficiency and discourage practices associated to low efficiency. The modern approach uses complex methods, such as stochastic models and linear programming in measuring efficiency. In authors' opinion, among modern approaches, most common are parametric and non-parametric methods. Stochastic Frontier Approach (SFA) is the most popular parametric model, while the most common non-parametric model used in efficiency analysis is Data Envelopment Analysis (DEA). In addition to the study of the theory, concepts, frameworks and methods on efficiency, we research current empirical evidence on banking and insurance efficiency while analysing differences in approaches between different types of financial institutions. The focus of this research are studies on efficiency in financial institutions (banks and insurance companies). Among examined studies, most commonly used method is a linear programming method DEA. Furthermore, in several papers, traditional ratio method is compared to DEA in the accuracy of measuring efficiency. The results corroborate the idea that complex, sophisticated measures of efficiency provide more information on inefficiencies of financial institutions in comparison to the traditional ratio analysis.

Furthermore, it is revealed that the approaches that in their models involve activities characteristic to specific financial institutions such as risk management in insurance companies and banks are still young and not researched enough. This paper aims to review alternative measurement approaches of efficiency implementing risk management activities in their methodology. The main objective of this paper is to define which approaches in measuring financial institutions efficiency are superior and why. The debate between approaches and measurement methods of efficiency boils down to the use of parametric and non-parametric methods. Empirical evidence from observed studies indicates that there is no measurement approach without drawbacks. On one hand, parametric methods lack flexibility in implementation of the production function. On the other hand, non-parametric methods do not incorporate a random error; therefore, some of the resulting inefficiency can and should be attributed to noise. Solutions for the drawbacks of both approaches are proposed by Berger and Humphrey (1997, 9) that is, adding more flexibility to the parametric method and introducing a degree of random error into the non-parametric method. Furthermore, our paper aims to tackle the following research questions: What is the relationship between risk management and efficiency of financial institutions? Is the direction of this relationship positive or negative? In other words, does risk management positively or negatively affect efficiency of financial institutions? Furthermore, what measurement approaches have been deployed to evaluate the effect of risk management activities on efficiency of financial institutions and what are the advantages and drawbacks of this alternative measurement approaches? The paper is structured in Sections as following, Section 2 deals with a brief theoretical framework, literature review on concepts, approaches and methods on efficiency of financial institutions. Section 3 provides an overview of empirical research on the topic of financial institutions efficiency focusing primarily on the banking industry while comparing sophisticated methods to traditional ratio efficiency. Section 4 deals with efficiency and risk focusing on empirical studies that incorporate risk management into efficiency estimation. Section 5 concludes with discussion on future research on financial institutions efficiency.

2. THEORETICAL BACKGROUND AND LITERATURE REVIEW

Economics is often concerned with efficiency since we live in a world of finite resources. Drucker (1963, 53) states that the main duty of a business manager is to "*strive for the best possible economic results from the resources currently employed or available"* that accurately defines profit efficiency. Furthermore, being cost efficient means using fewer resources in the production of the same volume of goods as before. Efficiency measures the effectiveness of outputs production using the possible minimum of inputs. Production theory describes that inputs (capital and labor) through the production process create outputs. Efficiency of financial institutions is important since they have a crucial role in the stability of the financial system and play an important role in economic growth through financial intermediation. Neoclassical production theory considers financial institutions as economic units that through financial intermediation transfer inputs into outputs. This enables the evaluation of efficiency of financial institutions by cost, technical and allocative efficiency. Furthermore, according to Alber et al (2019) this enables us to focus on identification and the proposal of solutions for inefficiency.
Traditionally, efficiency of economic entities is measured using simple ratios of accounting information, in other words by financial indicators. Financial indicators are often used as a simple but effective method of measuring financial institutions performance. As stated before, a basic definition of efficiency is the ability of an economic unit, or an organization, to produce its outputs using minimal inputs. On one hand, simplicity of financial indicators and vast availability of accounting information from financial statements makes ratio analysis a common method in measuring efficiency. One major limitation of the traditional approach in measuring efficiency is that it does not provide an explanation for inefficiency.

On the other hand, more complex and sophisticated methods of measuring efficiency, such as parametric and non-parametric methods, are used to solve these limitations but add more complexity and depend on the theoretical framework that defines the role of decision-making units (DMU's). Daley and Matthews (2009) explore whether the use of sophisticated methods brings value to efficiency analysis in comparison to traditional methods in banking sector in Jamaica. They compare bank efficiency estimates from accounting ratios and Data Envelopment Analysis (DEA) in the period from 1998 - 2007. Concluding remarks reveal that sophisticated methods in measuring efficiency can provide significant value-added to the management of bank efficiency in Jamaica. Current work on banking efficiency from Alber et al. (2019) explores the concepts, drivers and measures of efficiency while providing a current literature review. They also elaborate a conceptual framework proposed by Mokhtar et al. (2006). According to Alber et al. (2019, 4) there are five concepts of efficiency:

1) **Pure technical efficiency** – defined as the difference between observed quantity of input and output variables with respect to optimal quantity of input and output variables.
2) **Scale efficiency** – the ability of a bank to reach optimal operations – scale efficiency is attained when the bank operates in the range of constant returns to scale (CRS).
3) **Allocative efficiency** – measures the efficiency in choice of an optimal set - an optimal combination of inputs with respect to the given prices of these inputs.
4) **Cost efficiency** – is the ability of a bank to provide services without wasting resources because of technical and/or allocative efficiency. More so, cost management as a driver of cost efficiency is not just about reducing expenses but also about generating more revenue per unit of cost.
5) **Scope efficiency** – occurs when the bank operates in different diversified locations.

Furthermore, authors identify three drivers for banking efficiency: strategy, execution of strategy and environment. Additionally, risk exposure and risk management are a part of banks strategy and therefore should be considered another driver for banking efficiency. Bank strategy is a key driver for banking efficiency because it involves all activities that banks conduct in offering services. Regarding the second driver for efficiency, it is evident that human management plays a crucial role in the implementation and the execution of banks' strategy. Environment is an important driver of efficiency mainly because it refers to macroeconomic trends that drive financial institutions activities such as legislation (regulation and supervision), competition and innovation. Financial institutions will strive to influence legislation through lobbying. They will stimulate innovation through investments in research and development, but more importantly, competition in general is the main external driver for efficiency in financial systems. Risk exposure and risk management activities are part of financial institutions strategy therefore, the approach to risk exposure and risk management is a driver of efficiency. There are several approaches to measure efficiency and to classify the measures of efficiency. Firstly, according to Berger and Humphrey (1992, 247-250) there are three approaches:

1) **The asset approach to define bank output:** banks are defined as financial intermediaries between liability holders and the receivers of bank funds (loans and other assets represent bank outputs; deposits and liabilities are inputs of the banking process). One drawback of this approach is that it does not take into account other banking services to depositors. However, this can be useful in studies that are focused on loan costs or profitability, but it is certainly inadequate in studies that focus on bank total output.
2) **The user cost approach:** uses the basis of net contribution to bank revenue to identify whether a financial product is an input or an output. The classification of inputs or outputs follows from the effect on bank revenue – if the opportunity cost of a liability is greater than its financial returns, the instrument (liability) is classified as a financial output. However, if the opportunity cost of a liability is lower than its financial returns, the instrument is

classified as a financial input. The main drawback in applying the user cost approach are difficulties in measuring financial revenues and marginal opportunity costs. This makes the classification of inputs and outputs subject to measurement errors and sensitive to changes in the data over time.

3) **The value-added approach**: all liability and asset categories have some output characteristics (there is no difference between inputs and outputs in an exclusive way). This approach uses operating cost data in an explicit way. Despite the cost approach and value-added approach are somewhat different in some cases, they do produce similar results.

Berger and Humphrey (1992) further explain that the main obstacle defining the right approach to measure efficiency is defining outputs and inputs of financial institutions. Financial services mainly offered by banks and insurance companies are not priced in the same way as services provided by other industries because of institutional and regulatory reasons. Their conclusion is that the value-added approach is the most appropriate approach in most cases since in it "flows of physical labor and capital inputs are matched to banking functions". The value-added approach identifies the important bank outputs as being the deposit and loan categories. Huges and Mester (2008, 3-6, 14) propose a different classification, nonstructural and structural approaches:

1) **Nonstructural approach** is a comparison of various aspects of performance among banks using different financial ratios; for example, ROA, ROE, ratio of fixed cost to total costs, Tobin Q ratio (the ratio of the market value of assets to the book value of assets), Sharpe ratio (the ratio of expected returns over the risk-free return to the volatility of returns – standard deviation). This approach considers the relationship between performance and investment strategies and other factors such as characteristics of governance (it looks for agency problems in correlation with performance ratios and variables characterizing the quality of banks' governance).
2) **Structural approach** relies on the theoretical model of the banking firm and a concept of optimization (in this approach bank is considered as a financial intermediary that produces informationally intensive financial services and diversifies risks). Furthermore, it combines the theory of financial intermediation with the microeconomics of bank production, which helps in the classification of outputs and inputs in bank's production structure. This approach in general relies on the cost minimization or profit maximization (performance equation denotes or a cost function, or a profit function). However, it is possible that the performance equation denotes a production function (results provide insight on technical efficiency).

Furthermore, Wozniewska (2008, 81-84) differentiates three types of measures of efficiency, traditional, parametric and non-parametric methods:

1) **The traditional method:** is the already mentioned ratio analysis or in other words, use of accounting ratios - financial indicators, where financial statements are the main source of information such as:
   a) **profitability rates**: return on assets (ROA), return on equity (ROE), return on sale (ROS), costs ratio (C/I)
   b) **margin rates:** net interest margin (interest result/assets), interest spread (average interest-bearing assets – average expense of interest-bearing liabilities)
   c) **weighted result rates:** the result rate with reserves (change in reserves – financial result), the result rate charged with operating costs (operating costs/financial result)
   d) **employment efficiency rates:** assets per employee (assets/number of employees), financial result per employee (financial result/number of employees)

2) **Parametric methods:** use of "parametric programming" – the base is production or expense function whether cost or profit efficiency is measured. However, here lies the main drawback of parametric methods, the risk of misspecification of the functional form (Berger and Humphrey, 1997). Parametric methods measure economies of scale while assuming all decision-making units are operating efficiently. Parametric methods include:
   a) **Stochastic Frontier Approach (SFA)**
   b) **Thick Frontier Approach (TFA)**
   c) **Distribution-Free Approach (DFA)**
3) **Non-Parametric methods:** or non-parametric programming approach considers the degree to which total efficiency in the financial sector can be improved, and ranks the efficiency scores of decision-making units (DMUs). For example, ranking financial institutions (banks and insurance companies) from efficient (100% efficiency) to less efficient on a specific financial market. Most widely used nonparametric method is non-parametric Data Envelopment Analysis (DEA). The main drawback of non-parametric methods is the assumption that there is no random error (Berger and Humphrey, 1997).

Regarding the solution to the main drawbacks in parametric and non-parametric approaches, Berger and Humphrey (1997, 9) propose adding more flexibility to the parametric method and introducing a degree of random error into the non-parametric method. Wozniewska (2008,86) further explains: *„weather we want to maximize outputs or minimize inputs we can calculate input technical efficiency (how much company's inputs can be decreased to and still boost efficiency while outputs remain the same) or output oriented technical efficiency which shows how much productivity can be increased using the same amount of inputs".* Therefore, input oriented analysis is particularly useful for evaluating financial institutions performance as it measures cost efficiency. According to Wozniewska (2008), there are several approaches in applying non-parametric DEA method, but classically there are three approaches on how bank's behavioral model defines inputs and outputs of bank's activity:

1) Intermediation approach: the only difference from the production approach is the specification of bank's activities. Intermediation approach derives from bank's intermediary services that transfer funds from entities with monetary surplus (depositors, creditors, investors) to monetary deficient entities (loan borrowers).
2) Production approach: financial institutions - bank's activities are treated as "production" of financial services to depositors and borrowers. The main question in this approach is *what is the most suitable way of presenting volume (quantity) of products (services)?* Because of availability of data, most frequently used in presenting the volume of products are sums of turnover in nominal value.
3) Modern approach: introduces specific characteristic features of bank's activity such as risk management and data processing. That is an interesting way of measuring efficiency of financial institutions since risk management activities are more and more important in ensuring financial systems stability and economic growth. Just a few studies research the effect of risk management activities on efficiency of financial institutions and proposes itself as an interesting sub-field of study for future research.

Literature on financial institutions efficiency states that, among the classical approaches, there are also present the assets approach, value-added approach and user cost approach as noted earlier from Berger and Humphrey (1992). Regarding the analysis of efficiency, Alber et al. (2019) derive from the existing literature that the main concept of measuring efficiency can be divided into two categories: Technical Efficiency (TE) and Allocative Efficiency (AE). Technical efficiency is defined as firm's ability to maximize outputs from a combination of inputs.

Allocative efficiency can be defined as the firm's ability to select an optimal combination of inputs taking into account limitations in prices, productions process and technology. Overall, economic Efficiency (OE) is a product of technical and allocative efficiency, which can also be observed from a cost or profit standpoint. Therefore, we can decompose cost efficiency into allocative and technical efficiency. In other words, according to Alber et al. (2019), cost efficiency is the product of allocative and technical efficiency. A conceptual framework for banking efficiency is provided by Mokhtar et al. (2006). The framework is divided into five steps that are needed to measure the efficiency of a production unit. Firstly, it is necessary to define the main objectives of the research – efficiency measurement of financial institutions. Second step is to define the type of efficiency that will be measured (technical or allocative efficiency: cost or profit). In the third step, most common estimation techniques (approaches) are presented. As described earlier, there is the parametric approach (econometric methods) and the non-parametric approach (linear programming methods). Mokhtar et al. (2006) further explain that both approaches are equally used in efficiency studies and that there is scarce evidence of consistency between two approaches. One can assume that, if findings from the two different approaches (techniques) are quite similar, that the results are not attained by chance or luck. Fourth step is crucial because of the decision of input and output variables in the model. Here we return to the two classical approaches to the bank's behavioral model. This step defines in what way are bank's activities – financial services treated. As stated before, traditionally there are the intermediation approach (most widely used in practice) and the production approach. The last step in Mokhtar et al. (2006) conceptual framework are the efficiency results. They are valued from zero up to 1 (or 100%) – which would indicate full efficiency and operation on the frontier. Therefore, a value lower than 100% shows that operations are not at the frontier. Furthermore, this indicates inefficiency as the difference between the attained efficiency and full efficiency of 1 (100%). Figure 1 shows the conceptual framework developed by Mokhtar et al. (2006).

Figure following on the next page

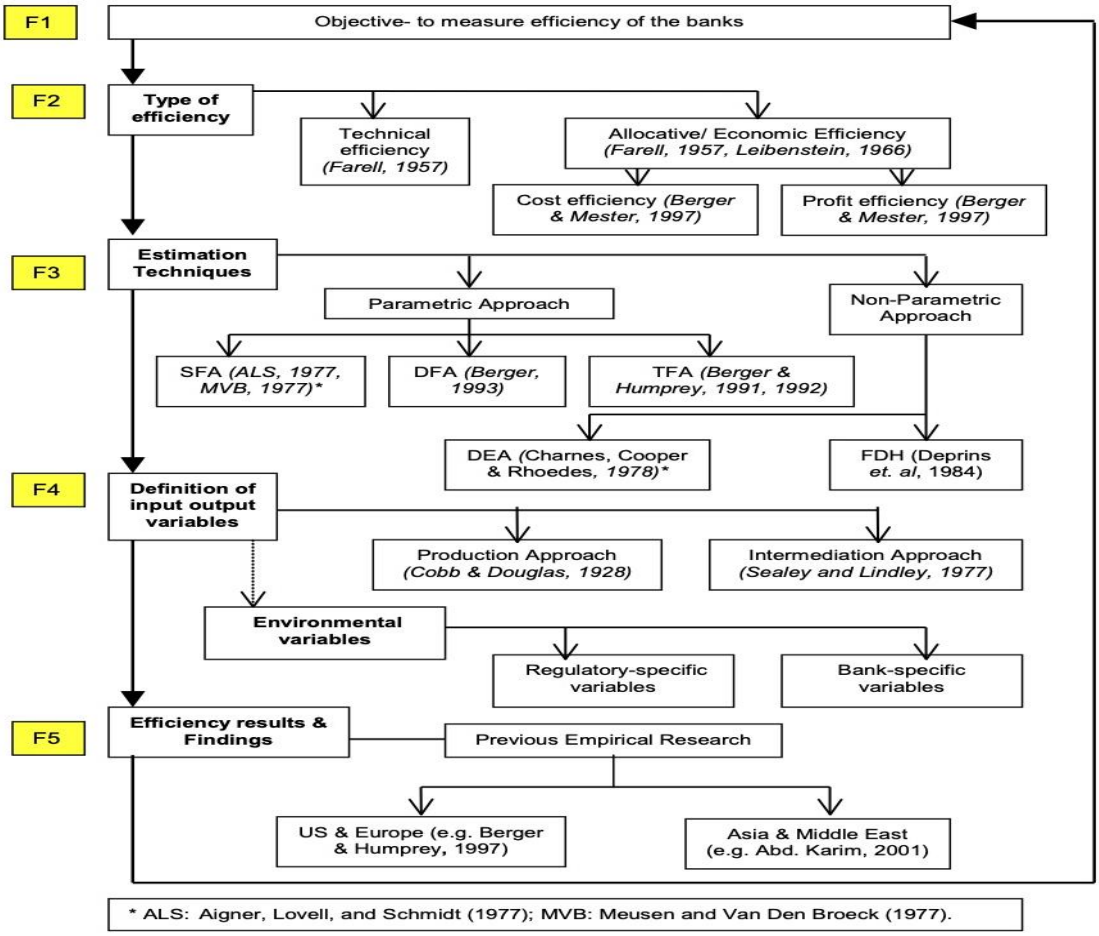

Figure 1: Conceptual Framework of Banking Efficiency
(Source: Mokhtar, H. S. A., AlHabshi, S. M., & Abdullah, N. (2006). A conceptual framework for and survey of banking efficiency study. UNITAR e-Journal, 2(2), 1-19; page 5)

According to Mokhtar et al. (2006) literature on efficiency divides the determinants of bank efficiency into regulatory-specific variables (bank type, time, ownership status, and geographical region) and bank-specific variables (size, capital adequacy, expenses, bank age). In this section, after a short theoretical framework, a literature review on concepts, methodology and approaches in measuring efficiency was presented. Conclusion of this section explained the proposed conceptual framework of banking efficiency proposed by Mokhtar et al. (2006). The following section provides an overview of empirical research on the topic of financial institutions efficiency.

3. OVERVIEW OF EMPIRICAL RESEARCH

Considerable body of literature empirically addresses efficiency of financial institutions, using different approaches, methodology, and with different focus. Literature review from Berger and Humphrey (1997) surveys 130 studies on financial institutions efficiency and there have been many studies since. According to Berger and Humphrey (1997, 1) the information attained from efficiency studies can be useful in three ways:

1) To inform government policy by assessing the effects of deregulation, mergers, or market structure on efficiency.
2) To address research issues by describing the efficiency of an industry, ranking of the firms, or checking how measured efficiency may be related to the different efficiency techniques employed.

3) To improve managerial performance by identifying "best practices" and "worst practices" associated with high and low measured efficiency respectively, and encouraging the former practices while discouraging the later.

More recently, de Abreu et al. (2019) examined 87 papers on the topic of banking efficiency that were published in the period from January 2011 until July 2017. Furthermore, authors apply clusters and citations networks to define the evolution of the field as well as identify research gaps and paradigms. Their findings show that the field of financial institutions efficiency has become such a complex category that it should be divided into several major sub-fields. According to authors, one major current research field aims to investigate the impact which competitiveness has on financial institutions efficiency. In this field, they find profitability and cost efficiency studies as well as studies on regulatory and supervisory policies on banking efficiency. Studies that explore links between diversification, risk and banking efficiency are most common in the observed period. These studies include a risk variable in the measurement of financial institution efficiency, which is a novelty in retrospect to traditional studies that form the foundation of microeconomic theory. Interestingly, authors discover that a frequent question in current studies is the relationship between risk and cost efficiency of banks. In their opinion, this stream of studies has been extremely important in modern application of efficiency analysis in banking (de Abreu et al., 2019). As stated before, in our view, most common methods in measuring efficiency of financial institutions are Stochastic Frontier Approach (parametric method) and Data Envelopment Analysis (non-parametric method) as it will be possible to deduce from the following empirical studies. Tuškan and Stojanović (2016) conducted a study on cost efficiency in the European banking industry in the period from 2008 until 2012. Cost efficiency was measured using traditional ratio analysis and nonparametric DEA. In ratio analysis, profitability ratios were used (such as ROA, ROE and CIR – cost to income ratio), while using DEA, expenses where defined as inputs and income as output and where used in several models (CCR DEA, BCC DEA and window analysis DEA). In this paper, banking systems are treated as decision-making units (DMU's) of each 28 banking systems of EU member states. Authors conclude that DEA methodology can be a useful tool in measuring efficiency of banking systems since it detects early signs of poor efficiency results. Furthermore, they argue that a comparison of ratio analysis and nonparametric approach (DEA) can be useful in drawing conclusions that are more precise on banking systems efficiency (Tuškan and Stojanović, 2016). Wozniewska (2008) compares efficiency measures (traditional method – ratio analysis and non-parametric DEA) on biggest banks in Poland from 2000 until 2007. Empirical results show that efficiency measures provide similar but not identical picture of Polish banks efficiency. It is stressed that main advantages for the traditional method (financial indicators) are simplicity and easiness of application, universality of application, ease of comparison since attained results of efficiency are in absolute values and availability of data. However, the application of non-parametric DEA as a method of measuring efficiency has the following advantages: greater extensiveness in comparison to financial indicators and it does not require access to data over long periods of time. Another main takeover from this study is that financial indicators produce absolute values of efficiency while DEA produces relative values of efficiency, which challenges direct comparisons of methods but enables DEA to indicate inefficiencies of financial institutions. Additionally, Jurčević and Mihelja Žaja (2013) conduct a similar study on the Croatian financial market measuring efficiency of banks and insurance companies using DEA and accounting indicators in the period before and during the financial and economic crisis (in the period from 2005 until 2010). In the study, 30 banks and 19 insurance companies where analysed. The main findings are in line with findings from Wozniewska (2008) since the results of the comparison between traditional accounting indicators and DEA show that the accounting approach lags in retrospect to DEA approach.

This means that DEA approach is more adequate in measuring efficiency of financial institutions than the traditional ratio approach since it shows signs of inefficiency (crises) earlier than the traditional ratio approach. Similarly, Maletić et al. (2013) apply DEA methodology on 33 banks in Serbia. Authors start by choosing one of the basic DEA models from CCR (Charnes, Cooper and Rhodes), BCC (Banker, Charns and Cooper) and AP (Andersen Petersen). They apply AP model on two sets of input-outputs, model A and model B. Model A examines cost efficiency – expense reduction with inputs: interest and non-interest expenses and outputs: interest and non-interest income. Model B on the other hand, uses deposits and number of employees as inputs and loans, deposits as well as operating income as outputs. Results show that only seven banks in Model A are "superefficient" (efficiency that exceeds 100%) and in Model B, only four banks are "superefficient". Using the attained results authors modify the BCG matrix with the goal of conducting a comparative analysis of the two models concluding that only one bank is "superefficient" in both models. In this section, an overview of current empirical studies on financial institutions efficiency was presented. More focus was attributed to non-parametric methods such as DEA since they are more common. Several studies compare the traditional ratio method to sophisticated methods and conclude that the latter provides more information while measuring efficiency. The following section introduces risk management as a crucial activity of financial institutions and provides arguments and empirical evidence on the topic of risk management enhancing financial institutions (cost) efficiency.

4. EFFICIENCY AND RISK

In this paper, our focus is on financial institutions efficiency in general. Since financial systems are dominated by banks and followed by insurance companies, we now focus our attention on risk management as crucial activity of financial institutions and its effect on efficiency. Similarly to banks, insurance companies are as well financial intermediaries whose premiums collected from their clients (policyholders) are allocated to investments in other financial assets with the goal of collecting returns on those investments. In the event of occurrence of an insured case, payment of the insured amount will be provided from such financial investments. Therefore, here lies the core of economic activity of insurance providers such as risk bearing services, risk pooling and risk diversification (Cummins et al., 2009). In simpler words, insurers work with risk (taking risk from policyholders – risk pooling, and investing premiums in different financial products – risk diversification) therefore they need to manage risk. However, it is important to not neglect the importance of risk management in banking activities, according to Huges and Mester (2008, 4) "*banks make choices about their structure and the amount of risk to assume, which should be taken into account when modeling bank production".* Furthermore, modern banking theory emphasizes managers' contrasting incentives for risk-taking. Increased risk taking has the possibility of ensuring higher returns for the firm while increasing potential risk of loss at the same time. However, reducing risk lowers the probability of excessive losses and protects the bank from financial distress (market volatility, liquidity crises, and regulatory interventions) while at the same time reducing the opportunity of attaining higher returns and increasing costs of risk management activities. As Huges and Mester (2008, 10) state, *"for most banks, valuable investment opportunities make trading profitability for reduced risk a value-maximizing strategy. Reducing risk can involve not just producing assets with lower expected profit, but also incurring higher costs to manage risks".* Risk management is also important in ensuring the stability of the financial system of a country by lowering systemic risk. Berger and Humphrey (1997, 23) indicate: "*A key role of countries financial institution regulators is to limit systemic risk – the risk that the problems of few institutions spread to many other institutions that are otherwise solvent and liquid".* From these statements, it is visible that a conventional view on risk management is that it is a cost for financial institutions.

While the implementation of risk management activities will reduce (for example volatility of cash flows) and in some cases eliminate the risk of loss, it proposes that costs from these activities strictly negatively affect performance and efficiency of financial institutions. In other words, implementing risk management activities is in economic terms justified only if the benefits (value added) of implementation of such activities are greater than the costs of implementing risk management that directly affects financial institutions profit and therefore, negatively influences their performance. Therefore, risk management in finance is often described as the "necessary evil" – something that has to be done to adhere to regulatory requirements such as capital requirements and capital adequacy. Ever since the financial and economic crisis of 2008, financial regulation and supervision is intensifying. Capital requirements such as Basel III in banking and Solvency II in insurance have an increasingly important role in ensuring the stability of financial systems. Diallo (2018) analyses the effect of bank efficiency on value-added growth of industries that were most dependent on external financing during the 2009 financial crisis on an international sample of 38 countries in a variety of industries. This attributes to the logic that more efficient firms - financial institutions, easily endure the negative effects of a financial crisis. Results show that bank efficiency relaxed credit constraints and increased the growth rate for financially dependent industries during the crisis. Since risk management has a more prominent role in activities of financial institutions it is needed to address its effect on efficiency in more detail. A similar argument is brought up by Cvilikas and Jurkonyte-Dumblauskiene (2016, 43) "*Although the banking risk management focuses mostly on the implemented risk management decisions influence on the risk of losses. However, intense tightening of risk management requirements is causing more and more concentration on the economic efficiency of the banking risk management, which enables to assess not only the decrease of the risk losses determined by the new risk management instruments and activities, but also any additional costs associated with the risk management system modifications".* Furthermore, Cvilikas and Jurkonyte-Dumblauskiene (2016) propose a new approach in measuring risk management economic efficiency by applying economic logistic theory. Their assumption is that there exists a correlation between the size of financial institution and risk management economic efficiency. Results suggest that risk management efficiency increases with the size of financial institutions (banks); meaning that risk management activities are costly and less efficient for small financial institutions, but create value by reducing or eliminating the risk of losses for bigger financial institutions. Altunbas et al. (2007) examine the relationships between capital, risk and efficiency in European banking in the period from 1992 to 2000. Financial integration and furthermore enhanced competition stress the importance of efficiency of financial institutions. Therefore, the authors address the relationships between capital, risk and efficiency. They argue that regulatory capital requirements (capital adequacy) are an important tool in managing insolvency risk. Increased competition in combination with higher cost of capital are likely to encourage risk-taking from financial institutions to address the loss of returns from additional capital allocated to regulatory requirements. Furthermore, authors state that "*From a regulatory perspective, and other things being equal, regulators may allow an efficient firm with better management probably more room for leverage"* Altunbas et al. (2007, 53). Their results suggest that there is a positive relationship between risk and the level of capital (and liquidity). Furthermore, it seems that risk is inversely related to inefficiency and authors conclude that banks that are more efficient take on greater risk (Altunbas et al., 2007). Similarly, Danıelsson, et al. (2002) explore the effect of further regulation and supervision on financial institution decision on risk management system. Their results show, that the choice between a sophisticated system with low cost and a lower quality model depends on supervisors' requirements. Therefore, banks are discouraged in the allocation of resources in risk management and will implement the standardized system if information on the sophisticated model needs to be disclosed.

This decision comes with the cost of precision from the "tailored" (internally developed) risk management approach corroborating that risk management activities are viewed as "necessary costs". Furthermore, authors conclude that financial institutions by implementing a more sophisticated risk management system (better capitalization) may be compensated by the regulator in the form of slightly lax risk constraint. Sun and Chang (2010) investigated the role of risk in determining the cost efficiency of international banks in eight emerging Asian countries. Authors implemented a stochastic frontier model to estimate bank cost efficiency including risk factors. They consider three distinct risks (credit risk, operational risk and market risk) and conclude that each risk differently affects banks' efficiency. Eckles et al. (2014) empirically test the impact of enterprise risk management on the marginal cost of reducing risk. Their findings support the hypothesis that implementing enterprise risk management firms experience lower risk and higher profits (higher cost efficiency). Furthermore, they focus on the insurance industry, which is interesting because one of the main risks that insurance firms have to manage is solvency risk. Risk management reduces earnings and cash flow volatilities, and therefore, it enhances solvency and cost efficiency. Paradi et al. (2004) introduce the "worse practice DEA" which identifies worst performers by placing them on the frontier. Worse practice DEA is implemented in credit risk evaluation. The results corroborate the method and authors propose that a combination of normal and worst practice DEA produces better accuracy in prediction of bankruptcy and non-bankruptcy of banks. Smithson and Simkins (2005) investigated the use of risk management tools (derivatives) to reduce risk (risk of losses) in the existing academic literature. In other words, authors investigated as the title of the paper states *"Does risk management add value?".* This study, beside financial institutions, focuses also on non financial firms. Authors conclude that, since financial price risks (for example the risk of changes in interest rates) can affect the expected returns on stocks and therefore, stock prices themselves, risk management activities add value in the sense of reducing the volatility of prices. Therefore, financial derivatives can be used to reduce the sensitivity of stock returns to risks. Risk management activities reduce cash flow volatility, hence reduce the likelihood that the company will be forced to missout on valuable investments. Finally, authors conclude that there is limited evidence from empirical studies that show a positive correlation between the use of risk management (in managing foregin exchange and interest rate risk) and higher share values. Therefore, it is evident that more research on the topic of "do risk management activities add value" is needed. Cummins et al. (2009) propose risk management as a potential determinant of firm performance. Authors argue that risk management and financial intermediation create value for financial institutions. They investigate this hypothesis on the U.S. property liability insurers market over the period from 1995 until 2003. In their opinion, since risk capital is costly, the role of risk management is to reduce risk capital (capital requirements). Furthermore, as risk management activities present themselves as costs for the financial institution, authors propose that efficient risk management can bring value as enhanced cost efficiency for the firm. The novelty and the main contribution of this research is the econometric estimation of the cost function where shadow prices of risk management and financial intermediation are used to calculate their effect on insurer cost efficiency. The authors conclude that risk management and financial intermediation contribute significantly in enhancing efficiency for property-liability insurers on the U.S. market. Furthermore, the study reveals that some insurers do not use risk management activities optimally and the increase or decrease of these activities could result in cost reduction, improving (cost) efficiency. This paper provides a synthesis of the approaches and methods used in measuring efficiency of financial institutions. Efficiency of financial institutions has been studied for some time now, but a consensus on the approaches is still missing. According to Berger and Humphrey (1992), most widely used is the value-added approach, but authors also stress that the choice of a proper approach is decided by the definition of inputs and outputs in the model.

As stated before, there are no perfect measures of efficiency and although several solutions to eliminate drawbacks from parametric and non-parametric approaches have been proposed, these solutions have yet to be implemented and empirically tested. Regarding the current state of empirical evidence, non-parametric approach seems to be widely accepted where DEA is the most popular method. However, parametric methods such as SFA are still relevant. Several studies in this paper have combined different approaches in their research to draw a clearer picture on efficiency. Furthermore, some studies have also dealt with the direction and the causality of the relationship between risk and efficiency: Cvilikas and Jurkonyte-Dumbliauskiene (2016), Altunbas et al. (2007), Eckles et al. (2014) and Smithson and Simkins (2005). These studies state that risk management activities bring value to the firm and can enhance cost efficiency. Other studies, such as Sun and Chang (2011), Paradi et al. (2004) and Cummins et al. (2009), deal with the implementation of different methodologies that include a risk factor as an input variable while measuring cost efficiency of financial institutions. The former and latter studies seem to provide a better picture in measuring efficiency of financial institutions. Perhaps one potential solution in improving the efficiency methods is introducing risk management activities as an input variable in the production cycle of financial institutions. Furthermore, although several studies showed in this paper have implemented this approach, more research on the topic should be done. The relationship between risk management activities and efficiency is not entirely clear and should be further corroborated theoretically and empirically in the future.

5. CONCLUSION

This paper is concerned with efficiency of financial institutions since it ensures the stability of financial systems and economic growth. Traditionally, because of its simplicity and availability of data, financial indicators are used as a measure of performance and efficiency of financial institutions. However, the main drawback of this approach is that financial indicators are limited in the information that they provide to the users. Therefore, methods that are more complex are used in the measurement of efficiency. Literature on efficiency classifies several approaches in measuring efficiency, where most prominent classification is the division between the parametric and non-parametric approaches. In our opinion, among parametric approaches most widely used is the Stochastic Frontier Approach (SFA), while among non-parametric approaches most commonly used is Data Envelopment Analysis (DEA). Furthermore, there are several approaches in implementing non-parametric methods such as DEA, that determinate the behavior of financial institutions that further define the classification of inputs and outputs of financial institutions' activity. A classical classification defines an intermediation and a production approach as well as a modern approach that introduces specific characteristic features of financial institutions activities such as risk management and data processing. A review of empirical evidence on efficiency of financial institutions proves that the filed has sub-fields that are relatively active and in general, the field is still empirically productive and relevant. Through systemic synthesis of existing empirical evidence, it is concluded that there is no perfect approach in measuring financial institutions efficiency. Both parametric and non-parametric approaches have their advantages and drawbacks. Furthermore, our research focuses on empirical studies that research the effect of financial institutions risk management activities on efficiency. In conclusion, after reviewing the existing literature, just a few studies address the effect of risk management on efficiency of financial institutions. This subfield of efficiency analysis in authors' opinion proposes itself as an interesting research topic for future studies.

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DIFFERENCES IN JOB SATISFACTION CONCERNING ORGANIZATIONAL CULTURE TYPES

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ABSTRACT

The paper aimed to examine differences in job satisfaction concerning company organizational culture. The basic cognizance about the researched concepts and their connection is systematized and analyzed in the theoretical part, which created the basis for the implementation of empirical research. For the purposes of the research, organizational culture was differentiated according to the typology based on Competing Values Framework (clan, adhocracy, market and hierarchy). Furthermore, for each researched company its dominant culture type was determined followed by individual indicators of job satisfaction, as well as total job satisfaction which were then compared between different groups of companies established according to their dominant culture type. Empirical research on a sample of 14 companies and 492 workers proved the existence of a statistically significant difference in overall job satisfaction concerning dominant culture type of the company, showing that workers in companies with dominant clan culture are statistically significantly more satisfied at work than all other respondents. More precisely, the most satisfied workers are in companies whose organizational cultures emphasize trust, understanding, friendly atmosphere, and helping, and whose key measures of success are human resource development, empathy, and concern for people. When it comes to individual indicators of job satisfaction, the analysis showed that workers from companies with dominant clan culture are significantly more satisfied with their associates, salary, and status in the organization than workers from other groups of companies and that workers from this group and from companies with dominant market culture are significantly more satisfied with their working hours than workers from companies with dominant adhocracy and hierarchy type.

Keywords: *Job Satisfaction, Organizational Culture, Organizational Culture Types, Republic of Croatia*

1. INTRODUCTION

Job satisfaction is one of the most researched concepts of organizational behavior (Spector, 1997). It is a topic for which there is a wide interest not only of scientists but also of managers in companies and workers. This is not surprising if we take into account the fact that job satisfaction is associated with many aspects of business, but also with life satisfaction in general, so the motives for exploring this concept are not only pragmatic but also humanistic in nature. When it comes to business, research has shown that job satisfaction reduces the turnover rate (Crampton, Wagner, 1994; Sablynski et al., 2002) and counterproductive behavior of workers (Gazioglua, Tansel, 2006) and has a positive impact on organizational performance Chan et al., 2000; Koys, 2001), which justifies the need for its systematic monitoring. Several different factors that affect job satisfaction can be found in the literature, and the organizational culture of a company is cited as an important organizational factor.

Existing research on the relationship between organizational culture and job satisfaction mainly goes in the direction of discovering the mechanisms through which organizational culture affects job satisfaction, ie the content of organizational culture that leads to the improvement of job satisfaction. It is increasingly emphasized that its impact on various components of organizational behavior does not arise from the individual, isolated values and norms, but from their configuration (Xin et al., 2002), and configurations of mutually consistent assumptions, values and norms are nothing but types of organizational cultures (Janićijević, 2013: 438). Therefore, recent research on the relationship between organizational culture and job satisfaction starts from a certain classification of cultural models and determines which of them implies greater job satisfaction (Lund, 2003; Zavyalova, Kucherov, 2010; Shurbagi, Zahari, 2012). However, the analysis of the research resulted in the conclusion that the connection between certain types of organizational culture and job satisfaction is still not unambiguously clarified and additional research is needed that will contribute to a better explanation of this relationship. This research was conducted in that direction. This paper aims to examine whether there is a significant difference in job satisfaction concerning the dominant characteristics of organizational cultures of a company. If there really is a difference, what type of organizational culture do companies with the lowest and with the highest level of job satisfaction have? Since the research on this topic, according to the authors, has not been conducted in the Republic of Croatia, as well as in neighboring countries, this study sought to examine the relationship between types of organizational culture and job satisfaction in the case of a developing country.

2. LITERATURE OVERVIEW AND HYPOTHESES DEVELOPMENT

Despite numerous attempts, the concept of organizational culture has not been unambiguously defined to date, nor have numerous methodological problems been fully resolved (Rudelj, 2011). Thus, a large number of different definitions are present in the literature. For example, Handy (1986) defines it as a set of values, norms, and beliefs. According to Schein (1990), organizational culture is a pattern of fundamental assumptions invented, discovered, or developed by a particular group as it learns to deal with problems of external adjustment and internal integration, and which has proven good enough to be considered valid. Bahtijarević-Šiber (1992) defines it as a relatively permanent and specific system of behaviors, values, beliefs, norms, and customs that determines organizational behavior, opinion and directs all activities of individuals and groups that make them, and Sikavica and Novak (1999) as a system of values, understandings, beliefs, ethics, lifestyles, personalities and company`s character. From the above definitions it is possible to draw the following conclusions, as important and defining features of organizational culture: first, it is collective, not individual; second, it is learned by the process of socialization; third, it is mostly invisible and inaccessible to the senses in general, and it manifests itself in behaviors, and fourth, its foundation is made of values. These characteristics represent fields of relative consensus in the literature. Research and measurement of organizational culture are very complex and accompanied by numerous methodological problems (Rudelj, 2011). "Regrettably, to date, there is no consensus on a finite set of key dimensions able to describe and to compare organizational culture across a large range of organizations" (Delobbe et al., 2002: 3), and the problem is the very large number of research instruments. Taras (2010) lists as many as 155 of them in his work. But in general, it can be said that it is possible to distinguish two basic approaches - dimensional and typological (Jung et al., 2009). The first approach is aimed at assessing certain dimensions of organizational culture and determining its profile. Within the second, the so-called typological approach, a step further has been made concerning the dimensional approach, and it assesses to which type of organizational culture the culture of a particular organization belongs. In more recent research, authors mostly take this approach (Yesil, Kaya, 2012; Matzler et al, 2013; Buh, 2016).

Although existing typologies differ depending on the observed basic contextual properties, most authors talk about four basic types of organizational culture. So Deal and Kennedy (1983) distinguish 'tough guy' culture, 'bet your company' culture, 'work hard, play hard' culture and process culture, Trommpenaars (1994) family culture, 'Eiffel tower' culture, 'guided missile' culture, and incubator culture, Handy (1978) power culture, role culture, task culture, and people culture. Cameron and Quinn (1999) propose four types of organizational culture based on two basic dimensions: one dimension deals with the stability or flexibility of the organization while the other deals with the focus of the organization - whether it focuses on its internal processes or processes in its environment. Their four types of culture are hierarchy (focus on internal processes, stability), clan (focus on internal processes, flexibility), market (focus on processes in the environment, stability), adhocracy (focus on processes in the environment, flexibility) cultures. The latter typology was used in the present study to determine the types of organizational cultures of companies in the Croatian economy. When it comes to job satisfaction, in the literature it is most often defined as a pleasant or positive emotional state related to the work a person does" (Locke, 1976), and arises from the perception that the worker has about his/her job and which gets related to work and the work environment (Black, Steers, 1994). Some authors do not define this phenomenon as a central feeling but start from individual aspects that represent attitudes towards different components of work, such as working conditions, superiors, associates, salary, job security, possibility of advancement, and the like. Accordingly, there are two approaches to measuring job satisfaction. The first refers to the determination of overall job satisfaction, while the second approach refers to the determination of satisfaction with individual factors, and overall satisfaction is obtained as the sum of satisfaction with individual factors (Zavyalova, Kucherov, 2010). Although the second approach seems more comprehensive and sophisticated, it is not necessarily better, since not every job satisfaction factor may have the same importance for all workers (Spector, 2000). For example, not all workers are interested in promotion, so job satisfaction is not related to this factor, although it is very often taken as an indicator of job satisfaction (Smith et al., 1969; Zavyalova, Kucherov, 2010). Sometimes, however, companies are interested in noticing the impact of some unique elements on job satisfaction, such as some specific policies or procedures unique to that organization. Therefore, the approach by individual factors can be very useful for companies that want to determine the reasons and sources of dissatisfaction to eliminate them or improve job satisfaction of their employees. On the other hand, if both approaches are used, a broader and complete picture of the level of job satisfaction is obtained (Bakotić, Vojković, 2013: 33). The influence of organizational culture on job satisfaction stems from its nature. As a system of assumptions, values, norms, and attitudes shared by members of an organization, organizational culture significantly influences their thinking and behavior (Cameron, Quinn, 1999). However, many elements of organization and management differ in different types of culture, depending on their content and character. In other words, different types of culture in organizations imply different strategies, control systems, salary systems, employee motivation profiles, and the like (Janićijević, 2013: 260) which will affect employee satisfaction in different ways. This means that the characteristics of organizational culture can be such that it negatively affects job satisfaction. Thus, Lund (2003) in his research conducted in the USA found a positive influence of the clan and adhocracy type of organizational culture on job satisfaction, while in the case of market and hierarchy culture this connection proved to be negative. On the other hand, San Park and Kim (2009) found a positive influence of the clan and market type on job satisfaction in Korean companies, while in the case of the adhocracy and hierarchy type this relationship did not prove statistically significant. Zavyalova and Kucherov (2010) found in their research conducted in Russia the highest level of job satisfaction in companies with the dominant clan and adhocracy type of culture, and the lowest in companies with the dominant market type of culture.

Silverthorne (2004) concluded that workers in companies whose organizational cultures encourage internal orientation (concern for people) show greater job satisfaction than workers employed in companies with an emphasis on innovation and/or hierarchy. McKinnon et al. (2003) found that concern for people, stability, but also innovation have a positive effect on job satisfaction. Platonova et al. (2006) point out that companies whose management recognizes and evaluates the performance of their workers have significantly more satisfied employees than other companies. From the presented results of previous research that have linked certain types of organizational culture and job satisfaction, it is clear that they did not give consistent results. Nevertheless, it can generally be concluded that companies whose organizational cultures nurture values such as teamwork, trust, and employee involvement in decision-making, which are largely characteristics of the clan type of organizational culture, have very high job satisfaction. On the other hand, in companies where the emphasis is on rules and procedures, which is characteristic of the hierarchy type of organizational culture, workers show significantly lower job satisfaction. Therefore, the following hypothesis is proposed: *H1. There is a significant difference in job satisfaction given the dominant type of organizational culture of workers` companies.* For its verification, two auxiliary hypotheses have been set up, which will enable a better understanding of the subject of research, and which are: *H1.1. Workers in companies with the dominant clan type of organizational culture express the greatest satisfaction at work. H1.2. The lowest job satisfaction is expressed by workers in companies with the dominant hierarchy type of organizational culture.*

3. RESEARCH METHODOLOGY

The data collected from the empirical research, which included 14 Croatian companies from different sectors, will be used to prove the set hypotheses. According to the criterion of the number of employees, the surveyed companies belong to medium-sized companies, ie they employ between 50 and 250 people. Most of the companies in which the survey was conducted have been operating between 10 and 20 years, with the "youngest" company founded 7 years ago. From the very beginning, it was decided that the researched companies should operate for at least five years for the obtained results to be relevant, which is related to the fact that it takes some time for the organizational culture to take root in the company since it is created through the accumulation of individual experiences (Janićijević, 2011). Depending on the total number of workers, between 20 and 70 were surveyed in companies. The sample tried to include all relevant categories of workers for each company, taking into account the hierarchical level, organizational unit, and years of work in the company. In addition to workers, board members were also interviewed for the survey. Ultimately, the results of the research were obtained based on the answers of 492 respondents. As a means of collecting primary data in the research, a survey questionnaire was used, which was divided into three conceptual parts: the cover, instructions, and thematic units. The cover page of the questionnaire explains the research topic, content, purpose, and goals. Instructions for completing the questionnaire were given on the next page and included a note on the confidentiality of the data collected and the anonymity of the respondents. A total of 36 questions were grouped into three thematic units, namely: (1) socio-demographic and professional characteristics of the respondents, (2) organizational culture, (3) job satisfaction. The statements used in individual measurement scales were taken and adapted from the existing measurement scales that can be found in the relevant scientific literature. Thus, the Organizational Culture Assessment Instrument (OCAI) by Cameron and Quinn (1999) was used to study organizational culture, which was applied to identify the dominant type of organizational culture in a particular organization (adhocracy, market, clan or hierarchy). Due to the undesirable statistical properties of ipsative results (Šverko, 2009), instead of the original scale with ipsative ranking, the Likert scale from 1 - "I do not agree at all" to 7 - "I completely agree" was used.

This choice is further justified by the fact that most of the papers in which the authors approached the empirical verification and validation of the OCAI instrument with the Likert scale supported its original structure (e.g., Kalliath et al., 1999; Lamond, 2003; Choi et al., 2010; Heritage et al, 2014). Indicators of job satisfaction were partially compiled according to Lund (2003) and supplemented by measures from Chiker (2003), and relate to satisfaction with the company management, associates, salary, job stability, working hours, status in the organization, and working conditions. To express the degree of agreement/disagreement of the respondents with the statements, the numerical Likert scale was used with seven degrees of intensity, from 1 - "very dissatisfied" to 7 - "very satisfied". The obtained values of Cronbach's alpha coefficients for the applied measuring scales range from 0.730 to 0.882, and it can be concluded that they are within the limits of acceptability ($\alpha > 0.70$), ie measuring scales have a satisfactory level of reliability. Approximately five months were spent on the implementation of the primary survey within the period from October 2019 to February 2020. Arranging, processing, and control of data were done in parallel with the implementation of the research to save the total time required to obtain the final results. The obtained data were analyzed in the statistical package IBM SPSS Statistics 22.0. According to the results, four groups of companies were formed (companies with the dominant adhocracy, clan, market, and hierarchy organizational culture), and then selected indicators of job satisfaction and overall satisfaction were analyzed for each group. The data were collected at the individual level, ie for each worker, and then recalculated (averaged) to obtain data at the level of each company or group of companies. In interpreting the results of job satisfaction, the classification proposed by Zavyalova and Kucherov (2010) was used, according to which average grades from 5 to 7 represent a high level of satisfaction, from 3.5 to 5 - above-average satisfaction, from 2 to 3.5 - below-average satisfaction, while average scores ranging from 0 to 2 indicate a low level of satisfaction.

4. RESEARCH RESULTS AND DISCUSSION

To answer the basic research question, the dominant type of organizational culture was determined for each of the 14 surveyed companies based on the testimony of the respondents (Table 1).

Table 1: Surveyed companies by economic activity, number of respondents, and type of organizational culture

Company	Economic activity (according to NACE)	Number of respondents ($\sum n = 492$)	Type of organizational culture
1	Accommodation and food service activities	25	Hierarchy
2	Manufacturing	30	Hierarchy
3	Information and communication	21	Clan
4	Accommodation and food service activities	43	Market
5	Information and communication	31	Adhocracy
6	Transportation and storage	25	Clan
7	Wholesale and retail trade	63	Market
8	Manufacturing	42	Adhocracy
9	Professional, scientific, and technical activities	23	Clan
10	Wholesale and retail trade	34	Hierarchy
11	Wholesale and retail trade	30	Market
12	Accommodation and food service activities	29	Clan
13	Manufacturing	72	Hierarchy
14	Financial and insurance activities	24	Hierarchy

(Source: Subject Research)

The results showed that most of the sampled companies have the dominant hierarchy type of organizational culture, as many as five. Four companies have the dominant clan type of culture, three companies have market culture, while the least companies are with the dominant adhocracy type of culture - two of them. The findings of this research do not differ significantly from the results of other related research on types of organizational culture conducted in the Republic of Croatia (Buh, 2016; Šandrk Nukić, Huemann, 2016), which also showed that most companies have the dominant hierarchy type of culture. This is in line with extensive research on national cultures, which for the Republic of Croatia regularly show high values for the hierarchy power distance dimension (Hofstede et al., 2010). No specifics were observed that could indicate that the economic activity could be a significant variable for organizational culture. The analysis results of individual job satisfaction indicators, as well as overall job satisfaction, and their comparison between different groups of companies formed according to the dominant type of organizational culture, are shown in Table 2.

Table 2: Comparison of job satisfaction in companies with different types of organizational culture

Job satisfaction indicators	Companies with predominant adhocracy culture	Companies with predominant clan culture	Companies with predominant competitive culture	Companies with predominant hierarchy culture
Company management	4,1	3,9	3,6	3,3
Associates	4,1	5,7*	4,5	2,7
Salary	2,9	5,0*	3,3	3,7
Job stability	5,3	6,4*	6,4*	4,6
Working hours	6,5	6,1	5,7	5,8
Status in company	3,6	5,4*	4,3	4,4
Working conditions	3,9	4,7*	3,6	3,8
Overall satisfaction	4,3	5,4*	4,5	4,1

** Statistically significant difference (p <0.05)*
(Source: Subject Research)

The research showed that salary is the factor of job satisfaction with which workers are least satisfied. This may be partly related to the fact that salaries in the Republic of Croatia are on average lower than salaries in most other EU countries, which is why Croatian workers, regardless of the activity in which they are employed, feel that they are not paid enough. However, the expressed dissatisfaction of some workers does not necessarily refer to the amount of salary, but also to the way it is determined, ie to the procedural fairness in the wage policy within the companies themselves. On the other hand, the highest marks were given to the working hours. However, this result should be taken with caution, as significant differences in workers` ratings were observed concerning the surveyed companies. Namely, it was shown that workers from companies belonging to the sector of professional, scientific and technical activities, as well as the sector of information and communication, were extremely satisfied with their working hours, while significantly lower marks for their working hours were expressed by workers in companies from the accommodation sector and foodservice. The obtained result may be related to the level of working time flexibility. Namely, the fact is that the nature of work for workers from the professional, scientific and technical sector, as well as the information and communication sector, is such that it can include various forms of flexible working time, such as requiring several hours in the workplace, while the rest can be performed from home. On the other hand, such working time flexibility in the accommodation, food preparation, and the serving sector is often not possible due to the nature of the work.

Quite high scores were also recorded for the indicator of employment stability, which may be related to the fact that 72.3% of workers from the surveyed sample were employed for an indefinite period. Namely, it is known that workers who have contracts for an indefinite period are generally more satisfied at work because they are less exposed to job insecurity and uncertainty, they can plan their careers and some general living conditions. As the results are analyzed for each group of companies, it can be noticed that workers in companies with the dominant adhocracy type rated the overall job satisfaction with an average score of 4.3. They are very satisfied with their working hours and the stability of employment. Their satisfaction is somewhat lower in terms of other indicators, but it can still be characterized as above average, except in the case of salary which is below average. When it comes to workers in companies with the dominant clan type of culture, their overall job satisfaction is quite high (average score of 5.4). For as many as five of the seven analyzed indicators, they showed a high level of satisfaction and they are satisfied the most with the stability of employment. They are least satisfied with the company management, which is a surprising result when we consider the fact that superiors in this type of culture have primarily the role of mentors, and provide support to employees. The result might be explained by the fact that "not all workers want their superiors to give them too much support, because it makes them doubt that they do not trust them and their way of performing work tasks" (Rollinsnon et al., 1998: 138). On the other hand, they expressed a fairly high degree of satisfaction with their associates, which confirmed the theoretical assumptions that teamwork and friendly and supportive relationships with colleagues, as some of the basic characteristics of the clan type of culture, create a sense of satisfaction. Workers in companies with the dominant market type of culture rated their overall job satisfaction with an average score of 4.5. They are also most satisfied with the stability of their employment, while they are least satisfied with the company management, working conditions, and salary. The lowest overall job satisfaction was found in workers in companies with the dominant hierarchy type of culture (average score of 4.1). This result also confirmed the theoretical assumptions and some results of previous research, according to which the emphasis on strict formal rules and procedures, and efficiency and cost rationalization, result in lower job satisfaction. In this group of companies, workers are satisfied below average with their associates, but also with their management. The One-Way Analysis of Variance (ANOVA) was conducted to test the difference in overall job satisfaction concerning the dominant type of organizational culture of the company. Previously, Leven's test of homogeneity of variance found that the variances of groups are homogeneous, with a test value of 1.032 ($p > 0.05$), thus satisfying the condition of equality (homogeneity) as a necessary assumption of the variance analysis. The ANOVA analysis showed statistically significant differences in overall job satisfaction concerning the dominant type of organizational culture of the company ($F = 3,266$; $p = 0,017$). The post hoc test according to Scheffe's procedure revealed that workers in companies with the dominant clan type of culture were statistically significantly more satisfied at work than workers in the remaining three groups of companies. On the other hand, the lower level of job satisfaction was detected among workers from companies with the dominant hierarchy type of culture but observed difference did not prove to be statistically significant compared to workers in companies with the dominant adhocracy and market cultural type.

5. CONCLUSION

The subject research analyzed the difference in job satisfaction concerning the dominant characteristics of organizational cultures in selected Croatian companies. For the purposes of the research, a typology was used according to which, given the type of structure and direction of the company, it is possible to derive the following four types of organizational culture: adhocracy, clan, market and hierarchy.

The results of the research showed that there is a difference in job satisfaction concerning the dominant type of organizational culture of the company, where workers in companies with the dominant clan type of organizational culture are statistically significantly more satisfied at work than all other respondents. More precisely, the most satisfied workers are in companies whose organizational cultures emphasize trust, understanding, a friendly atmosphere, and helping, and whose key measures of success are human resource development, empathy, and concern for people. This result confirmed the auxiliary hypothesis H1.1. Following the initial assumption, it was proved that the lowest overall job satisfaction is expressed by workers in companies with the dominant hierarchy cultural type, ie in companies where the emphasis is on efficiency, formal rules and procedures, cost minimization, and planning. However, the lower level of job satisfaction of workers from this group of companies did not prove to be statistically significant compared to workers in companies with the dominant adhocracy and market cultural type, which is why the auxiliary hypothesis H1.2. was not confirmed. Given that the research confirmed hypothesis H1.1., and rejected hypothesis H1.2., it can be concluded that hypothesis H1 was partially confirmed. The results of this research can be used for further research related to the subject and similar issues. In addition, they can serve top managers as an incentive to gradually build a new organizational culture that will encourage job satisfaction with its core values, which requires perseverance and a longer period. The limitation of the subject research is related to the shortcomings in the methodology of organizational culture research. For research purposes, companies were compared according to the dominant cultural type, which is a very common and useful approach for researchers, but it neglects the fact that the organizational culture of each company has at least some characteristics of other types of culture. This should be taken into account when interpreting the results and drawing conclusions. The sample of enterprises can be considered as another limitation of this research. Better validity and generalization of results can be achieved with a larger and more representative sample of companies and respondents. Therefore, the recommendations for future research are reflected in the possibility of researching a larger sample, to gain a better insight into the relationship between job satisfaction and organizational culture. Furthermore, it is recommended to include other indicators of job satisfaction in future research.

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COMPARATIVE ANALYSIS OF RELATION BETWEEN ENTREPRENEURS AND THE STATE: CASE OF DEVELOPMENT OF NAUTICAL TOURISM IN GERMANY AND CROATIA

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ABSTRACT

Given the market aspect, Europe has five developed nautical tourism markets, of which the Mediterranean in many ways holds important position. Croatia is trying to find its place in the European map of nautical tourism and join Italy, France and Spain which form a group of key nautical destinations in this part of Europe. Given that nautical tourism is functionally connected with the use of state resources, sea and water, which have the status of a public good, its development is conditioned by the relationship with the state. This relationship is conditioned by the concept, the system, which the state develops, which represents the promotion of its short-term and long-term goals, but also the ability of politics to support the development of nautical tourism at the national level. In order to valorize this relationship between the state and the entrepreneur, the paper presents a study of the system developed in Germany, which relates to marinas in the Baltic. This system is a compilation of Germany's traditional system, known as the "social market economy", and a sophisticated system that supports investment, the development of nautical tourism as well as destinations. This paper offers comparative analyses of the operation of this system on the basis of a case study of marina in the Baltic, and on the other hand, marina in Croatia. In this way, the quality of the Croatian system and the German system will be analyzed, and the success of these two significantly different systems will be evaluated. The aim of the research is to show the factors of the system of Croatia and Germany, as well as the ability of the state to develop national entrepreneurship through the system, in this case nautical tourism.

Keywords: *entrepreneurship, marina business model, nautical tourism*

1. INTRODUCTION

Nautical tourism is an important tourist and economic activity of most national economies. It comprises of two major industries: nautical tourism ports and charter. In Europe, nautical tourism ports (in most cases marinas), are being developed partly as an entrepreneurial activity and partly as a sports and commercial activity. Nautical tourism, in all its forms, is found in all countries of the European Union, regardless of whether the country has the sea or not. Apart from the sea, rivers, lakes and canals are also suitable for the development of nautical tourism.

This research focuses on the commercial and entrepreneurial segment of nautical tourism ports. The development of nautical tourism ports, in terms of entrepreneurial projects, is important for each country and its economy, and each country has built its own model of development.
The national model for the development of nautical tourism and entrepreneurship ports is especially important if it relies on the public good, such as the maritime good, such as in Croatia. The use of maritime property carries the characteristic of sustainability, that is, preservation for future generations. Therefore, such a good is legally protected, and the state controls the way it is used. In this sense, the system of entrepreneurship development, in this case the port of nautical tourism, should include all long-term elements that the state encourages and transparently promotes and gradually develops in accordance with the circumstances and level of development. The purpose of this research is to analyze the national development systems of nautical tourism ports that use a publicly protected good, in this case the sea. The aim of the research is to valorize the factors that shape the national system of nautical tourism port development, as well as to compare the quality of the system between the two economies that will be taken as case studies - Croatia and Germany.

2. ENTERPRENURIAL OPTIONS WITHIN NAUTICAL TOURISM

Nautical tourism can be defined as:"*... the sum of multifunctional activities caused by the stay of tourists-boaters in nautical tourism ports or out of them, and by the use of vessels and other objects related to the business activity of nautical tourism, aimed at recreation, sports, entertainment and other needs.*" (Luković et al 2014). This definition of nautical tourism is supported by four important explanations and appendices. Firstly, in order to apply the criterion of overall comprehensiveness as much as possible, it is necessary to avoid detailed analyses of nautical tourism activities. Namely, various analyses showed that navigation on vessels is not the only condition of nautical tourism. Some of the nautical tourists stay aboard without ever sailing. Moreover, cruising, a significant global business, which is a type of nautical tourism, is also included in this definition, since the definition does not only relate to nautical tourism ports but also to vessels as a medium. Therefore, the expression *navigation* is replaced by the term *use*, which is more comprehensive and thus more applicable. Boaters do not stay only in nautical tourism ports, but also in inlets or at "illegal berths". There is a prevailing opinion that it is necessary to allow boaters overnight stay out of the "clichés" of nautical tourism ports, moreover because it is a characteristic that attracts tourists to quality destinations where they can have a feeling of privacy and distance. The development of nautical tourism in terms of sustainable development, which assumes limiting the coast saturation aimed at the protection of nature as a motivational tourism resource, emphasizes multidisciplinary study of the coast.
Thirdly, besides the unavoidable term "*vessel*" the phrase "*other objects related to nautical tourism*" was added, since the nautical tourism activity is extending because of its diversification. For instance, overnight stay in nautical tourism supply is increasingly relating to objects that are constituent part of the supply products in Mediterranean marinas. Other activities and types of vessels (tourist submarines and bathyscaphe) are also present, categorized into nautical tourism group as they are located in nautical tourism ports. Also, besides sports, recreation and entertainment in the nautical tourism demand, the definition also contains the expression "*and other needs*". The reason to this is the demand that is constantly broadening in terms of motives and is a part of more vertically diversificated marinas. Therefore, nautical tourism is a complex tourist activity with a pronounced maritime component. This complexity is reflected in two basic elements and numerous sub-segments. Scientific thought related to nautical tourism is evolving by finding new links and a new model of nautical tourism classification has been gradually formed as shown in Table 1.

<table>
<tr><th colspan="5">NAUTICAL TOURISM INDUSTRY</th></tr>
<tr><th>1. SECONDARY activities</th><th colspan="3">BASIC TYPES AND SUBSYPES OF NAUTICAL TOURISM</th><th>2. SUPPLEMENTARY activities</th></tr>
<tr><td rowspan="3">- Diving tourism ,,
- Surfing,
- Rafting,
- submarine
- Rowing,
- Fishing tourism,
- Robinson tourism,
- Lighthouse tourism,
- And others.</td><td colspan="2">Doing business at the port of n.t. and port-related activities</td><td colspan="2">Cruising</td><td rowspan="3">- Dry dock
- Shipbuilding of mega yachts,
- Production of small vessels
- Production of equipment for n.t.
- Skipper services
- Information services,
- Sailing schools,
- Research institutes and educational centres,
- And other services</td></tr>
<tr><td>Nautical tourism ports:</td><td>Charter</td><td>Little shippers (local cruising)</td><td>Ports for receiving large cruisers</td></tr>
<tr><td>• Anchorage
• Mooring
• Marinas, by category</td><td>• Motor boats with and without skipper
• Sailing boats with and without skipper</td><td>• Day trips
• Multi-day excursions with accommodation service</td><td>a) Large city ports:
• Cruise Europe members
• Non-members
b) Other small local ports</td></tr>
<tr><td colspan="5">BASIC FIELD OF RESEARCH</td></tr>
</table>

Table 1: Segments of nautical tourism industry

The two basic subtypes of nautical tourism are: (1) business in nautical tourism ports (business of the ports themselves and their associated charter), and cruising which is divided into large world cruising and domestic small cruising. This large cruising business with 300 large cruisers is very well organized on the global level. Apart from large cruising, all other subjects of nautical tourism belong to group of SMEs, which gives them a special significance and role in the system of the national economy.

3. DYNAMICS OF DEVELOPMENT OF NAUTICAL TOURISM IN CROATIA

Croatian nautical tourism, in the segment of nautical tourism ports, developed within the framework of the former socialist system in which private entrepreneurial activity was stifled. After the end of planned economy first entrepreneurs started to appear in this industry which brought about question of relations between the state and the entrepreneur. The development of industry was rather fast. As can be seen from Table 2, nautical tourism ports, from 2005 to 2019, grew at an average annual rate of 5.03%. At the same time, the number of berths grew at an average annual rate of only 1.35%, indicating an increase in marinas with fewer berths.

	2005	2007	Geometric mean (2007/2005)	2019	Geometric mean (2019/2005)
Number of ports	84	94	5,79	167	5,03
Number of berths	15.058	15.834	2,54	18.179	1,35
Permanent berths	13.285	14.099	3,02	14.249	0,43
% on permanent berths	88,2	89,0	0,45	78,4	-0,84
Water area (m²)	3.901.705	3.309.958	-7,90	4.349.270	0,78
Land area (m²)	1.121.971	1.113.529	-0,75	786.238	-2,51
Number of employees	1.160	1.209	2,09	1.901	3,59

Table 2: Dynamics of nautical tourism port development from 2005 to 2019
(Source: Kapaciteti i poslovanje luka nautičkog turizma u 2005, Kapaciteti i poslovanje luka nautičkog turizma u 2007, Kapaciteti i poslovanje luka nautičkog turizma u 2019)

It should be noted here the legal provision according to which the concession for marinas up to 200 berths is given by the local autohorites and over 200 berths the concession is under the jurisdiction of the state. Therefore, the growth of county concessions is obvious, which emphasizes the connection between local/regional authorities and entrepreneurs who base their entrepreneurial venture on the maritime domain. The presented capacities of nautical tourism ports show that one nautical tourism port has an average of 108.85 berths in 2019, while the average in 2005 was as much as 179.26 berths. Also, vessels on a permanent berth fall by 0.84% on average per year, and the use of the waters in a period of 15 years increases by only 0.78% while at the same time the land area falls by 2.51% per year. Nautical tourism ports employ less than two thousand employees and in general it cannot be concluded that nautical tourism and investment in the development of nautical tourism ports are recording significant growth.
The question is related to the success of nautical tourism given the dynamics of development. From Table 3 it can be concluded that apart from the number of nautical tourism ports, all other indicators of nautical tourism are below the level of tourism development indicators.

		2005	2019	Geometric mean (2019/2005)
Nautical tourism	Number of ports	84	167	5,03
	Number of berths	15.058	18.179	1,35
	Water area (m^2)	3.901.705	4.349.270	0,78
	Permanent berths	13.285	14.249	0,43
Tourism total	Tourist arrivals	9.995.070	19.566.146	4,91
	Tourist overnights	51.420.948	91.242.931	4,18
	Accommodation capacity	909.210	1.160.067	1,75

Table 3: Comparison of basic indicators of tourism and nautical tourism for the period 2005 to 2019.

(Source: Priopćenje Nautički turizam, Kapaciteti i poslovanje luka nautičkog turizma u 2005. i Priopćenje Nautički turizam, Kapaciteti i poslovanje luka nautičkog turizma u 2019.Kapaciteti i poslovanje luka nautičkog turizma u 2005, Kapaciteti i poslovanje luka nautičkog turizma u 2019)

This indicates a relative developmental backwardness. In the conditions when the state document "Strategy for the development of Croatian nautical tourism 2006 to 2016" states that the supply of nautical tourism lags significantly behind demand, even about two times higher demand, the development of supply is not as expected. Given that development has its subjective factors, entrepreneurial motivation, and objective factors, the model and system of entrepreneurship development, including nautical tourism, it is necessary to analyze the effectiveness of the national development model. Also, from Table 3, especially from the growth of average annual rates, it can be seen that the growth of the permanent berths is the lowest, which is in line with the low values of nautical tourism in general. High annual growth is achieved by tourism, ie other forms of tourism observed in arrivals and overnight stays. However, there is again a low growth of accommodation capacities, which means that supply does not follow demand. The large growth rate of the number of nautical tourism ports is interesting, but there are many small nautical tourism ports, and thus the modest offer of these small ports.

4. SYSTEMS OF DEVELOPMENT OF ENTERPRENURIAL ACTIVITY IN NAUTICAL INDUSTRY SECTOR: ARE CONSESIONS THE BEST WAY?

As can be concluded from the above, the first side of development, the entrepreneur and entrepreneurial interest in investing in nautical tourism ports, is not growing in terms of investment activity. On the contrary, it lags significantly behind the development of tourism as a whole, which means that something within the nautical tourism system is not developmentally stimulating. It is therefore reasonable to assume that the other party, the state, with its system that should be stimulating for entrepreneurs, has also failed and that the system is not stimulating. In order to conclude this, it is necessary to analyze the Croatian entrepreneurial system that supports the development of entrepreneurship and thus the commercial nautical tourism port. As stated, nautical tourism ports are based on the use of maritime goods, i.e. public goods managed by the state or county.

4.1. Croatian system - concessions

The development of nautical tourism ports in Croatia and is based on concession as an exclusive model of entering entrepreneurial activity and investing in nautical tourism ports. According to the regulation concerning the concessions (Narodne novine, 2017), the right to use the maritime domain for the establishment of a new nautical tourism port is exercised through a tender. This system of concession as a model on which the development of nautical tourism is expected is set as an exclusive model that on the one hand cares about the sustainability of the maritime domain, and on the other hand is a source of filling the state budget. In the tender procedure, two factors were set as criteria for success: (1) the fixed size of the concession for maritime property calculated in Kuna's or euros per 1 m2, and (2) the percentage of nautical tourism port traffic. This is where the Croatian model and system from which the development of nautical tourism ports is expected ends, and which, as we claim, has not proven to be effective to date. When VAT and other levies are upgraded on this system, with which the nautical tourism port enters business, they end up as very significant state pressures in respect to competitive destinations. Therefore, with such a load, it is not realistic to expect the development of nautical tourism ports. In addition, the model according to the concession system does not contribute to the development of entrepreneurship, or developing of destinations, nor the economy as a whole. Its fundamental purpose is to fill the state budget which is shortsighted approach if we compare it to some other models.

4.2. German system - social market economy

The development of Germany is often referred to as a "German miracle", but basically design and implementation of a stable and efficient system. After World War II, Germany was under the control of great powers for a long time, who finally realized that the world needed a strong Germany, and although they divided it into two parts, West Germany began to develop rapidly. What was most important for the stability of Germany's development was the nationwide agreement on the "social market economy" model (Ger. Soziale Marktwirtschaft). The explanation of the model of "social market economy" means that the term "social" refers to a man, a resident of the federal state of Germany, who is in the first place and that he needs to ensure quality everyday life. The term "market economy" means that Germany has opted for civil society, capitalism, and especially entrepreneurship. In the sixties prof. Walter Euckner developed a national model of economic development known as the "Freiburg School. Professor Euckner was supported in 1963 by the First Chancellor of Germany, Ludwig Erhard. Since the beginning of the establishment of this model, this model has been continuously developed, maintained and reshaped in accordance with the new economic situations and goals of the German economy. What is important is the fact that it is a supra-political system and model that is generally accepted, thus ensuring peace on the political and economic scene in

Germany. In accordance with this model, the overall business logic of Germany is being developed, and in order to effectively implement the development, a model and sub-system with all its supporting segments, such as legislative support, oversight system, and executive system, has been set up. which connects the basic local self-government with the top-macro level of government. Given that the development of entrepreneurship is often associated with resources, a system of resource use on a social-market principle has been developed. In large projects, such as the construction of marinas, this system has proven to be extremely stimulating, but also very widely effective, so it is worth explaining. In general, Germany is developing according to the global system of "social market economy". This is not declarative but realistic, and a special commission assesses each law and sub-model as to whether it meets the basic criteria of a "social market economy". Basic concept: The goal of German policy is the uniform development of the entire federal state of Germany, which consists of 15 states. The relationship and competencies of these states, as well as the federal states of Germany, are very clear and uniform. Each state analyzed the level of development of each locality, noting that each local government has an elaborated plan of necessary facilities for the quality of life of its citizens. Accordingly, the entire local community is marked by a coefficient of development. This means that all the contents that are needed and recognized by the state as necessary, the state participates in the development incentive. Entrepreneurship has a special role and incentive in this. Legislation as a support: Considering that the basic concept of development of each local community is known and that it has been given the form of a model, the state has adopted two basic laws regulating the development incentive for entrepreneurship. For example, the state of Mecklenburg-Western Pomerania has two basic laws "Koordinierungsrahmen der Gemeinschaftsaufgabe" Verbesserung der regionalen Wirtschaftsstruktur "from 1 January 2020" (Coordination framework for the joint task "Improving the regional economic structure" of 1 January 2020). The introduction to this law emphasizes the importance of the concept of social market economy in the process of regional policy. Another important law is the "Coordination Material Legal Framework" (Koordinierungsrahmen der GRW), which is accompanied by other supporting documents with the force of law, such as the "Directive on the award of grants for the expansion of business infrastructure (Infrastructure Policy)". These two laws are changeable in terms of time and the realization of the goal they serve. There are also six other stable laws that are indicated as “Legal basis 2007-2013” (Rechtsgrundlagen 2007-2013). For the purpose of transparent implementation, there are also twelve documents entitled "Leaflets and application documents" (MerkblattundAntragsdokumente), and finally, in accordance with transparency and data protection rights, the document "Notice on data protection" (HinweisezumDatenschutz) was placed. As stated, the entire state of Mecklenburg-Western Pomerania is divided into regions marked by a degree of development. The entire territory of the state of Mecklenburg-Vorpommern is divided into so-called. labor markets, with associated water areas, as well as other interdependencies, so the level of its development is analyzed and determined for each region. In accordance with such a certain level of development, the level of state subsidy has been adjusted. For example, the town of Kröslin, which is located in the Baltic and along the border with Poland, is marked by the highest level of underdevelopment. What does it look like in practice? In accordance with the system that has been built, in the law "Koordinierungsrahmen der Gemeinschaftsaufgabe" Verbesserung der regionalen Wirtschaftsstruktur (ab 1. January 2020) "in the first chapter" I. part, definition of assisted areas”, ie, in sub-chapter B. “Regional model of indicators” the criteria are stated, as well as the measurable importance of each individual criterion. The total indicator consists of precisely defined regional indicators and the structure of indicators is formed as showed in Table 4.

1.	Average unemployment rate from 2009 to 2012	45%
2.	Gross annual salaries per employee for which social security contributions are paid in 2010	40%
3.	Employment forecast 2011 to 2018	7,5%
4.	Infrastructure indicator (as of 30 September 2012)	7,5%
	Total indicators	100,0%

Table 4: Criteria in the function of regional development indicators (Source: Koordinierungsrahmen der Gemeinschaftsaufgabe, p.9)

5. COMPARATIVE ANAYSIS OF THE EFFICIENCY OF THE CROATIAN AND GERMAN SYSTEMS: CASE OF TWO MARINAS

The efficiency of the two observed systems would be further analyzed by the comparative analysis of two case studies: marina Kröslin in Germany and marina Frapa in Croatia. Marina Kröslin is one of the best equipped German marinas in the Baltic. Its capacities are similar to the marina Frapa, Rogoznica, Croatia and it is easy to compare them, but now we will only explain the German model of supporting the development of entrepreneurship on the example of marina business. So, the Kröslin marina, when it launched its entrepreneurial project, chose the small and undeveloped town of Kröslin on the Baltic coast. This ensured her 30% state participation in the investment, which was realized through the state's investment in the entire marina infrastructure. Thus, the state supported the establishment of the Kröslin marina with a 30% share in the investment. Furthermore, this participation also included the social category of Germany, so it was defined that for every 500,000 euros of state investment, 1 worker must be employed. Based on that, the marina additionally employed 4 workers, and the task of the marina management is to ensure full employment of all marina workers. At the same time, the state receives a return on EU funds from such funds, given that the funds relate to infrastructure in a less developed locality. It should also be noted that a contract is set between the marina and the state with possible additional obligations for additional investments in marina development. The implementation of the contract is supervised by non-state institutions so as to avoid unnecessary state influence and possible corruption. Finally, it is interesting to analyze the efficiency of these two systems / models of marina development, so it is advisable to compare the efficiency of the examples of the marina Kröslin (Germany) and the marina Frapa (Croatia).

Table following on the next page

	Development indicators	Evaluation of system efficiency on the example of marinas		Comment
		Kröslin	FRAPA	
	Importance for the national budget	yes/no	yes	Unlike Croatia, revenue for the state budget is not important for Germany.
	Importance for employment	yes	no	The German system significantly encourages employment
	Incentive for the investor	yes	no	The Croatian model does not encourage investment
	Incentive for entrepreneurship	yes	no	The Croatian model does not encourage entrepreneurship
	Contractual mandatory additional investment	yes	no	The German system uses it and the Croatian system does not, except on special occasions.
	Contribution to destination demographics	yes	yes/no	The Croatian model does not contribute directly to demography, while the German model also contributes to the faster development of the locality.
	Contribution to destination development through infrastructure investments	yes	no	The German model significantly affects the infrastructure of the place where the marina is located.

Table 5: Comparison of the efficiency of the Croatian and German systems on the example of two marinas

As can be seen from Table 5, there is an important difference between the effectiveness of the Croatian and German systems in encouraging the development of entrepreneurship, i.e. marinas, in our case. Therefore, a distinction should be made between sources of influence as well as the quality and structure of existing models and systems. That is, the systems should be developmentally stimulating, especially from entrepreneurship perspective. In case of nautical tourism, which relies on the maritime good as a protected national resource, this issue is more important than in some other industries.

6. CONCLUSION

The above research shows that Croatia has not devised a model of nautical tourism development which would optimally contribute to employment, demography, investment and development in general. We argue that the example of the German system, as presented in the paper, is a good example to use in order to foster development of a more incentive driven system of entrepreneurship in nautical tourism sector in Croatia and other countries that use concession model. Comparative analysis shows how the concession-based development system has proven ineffective in every sense. It is especially disastrous that for an economy in transition, such as Croatia, this model puts the state and its budget in the foreground, hence putting the development in periphery.

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PROJECT TRIANGLE AS DETERMINANT OF EX POST IMMEDIATE EVALUATION OF PROJECT IMPLEMENTATION EFFICIENCY

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ABSTRACT

Currently, the growing interest in the issues of assessing all activities of both routine and non-routine nature is associated with the use of methods of their assessment. In particular, referring the issues of evaluation to non-routine activities, which can include projects, and the implementation of which is associated with a high often existential risk - organizational, technical, financial, it is justified to discuss the selection of both methods and criteria of evaluation. Projects understood as unique and temporary activities implemented in all areas are subject to evaluation, which can be performed by the project manager, stakeholders, as well as the evaluation institution using one or multi-criteria methods. The choice of the context for the assessment of the efficiency of a project is associated with the use of a universal concept of assessment of all activities, which is praxeology, i.e. the science of efficient operation, which is also used in the science of management in the area of project management due to the ergological nature of both fields. The notion of efficiency in praxeology is understood, inter alia, in a synthetic sense as the totality of the practical values of action, assessed positively. The fitness category is an overall rating that includes basic forms of fitness such as efficiency, economy and profitability. Therefore, the efficient implementation of the project can be assessed taking into account the achievement of the project goal and the basic parameters defined by the so-called project triangle, i.e. time, cost and quality. Moreover, in praxeology, actions are assessed ex ante in terms of a gradable goal and ex post in the context of their efficient implementation. In the article, for project evaluation, the own published basic method was used, which is applicable to ex post immediate evaluation of efficient project implementation. The aim of this article is to perform an ex post immediate evaluation of projects implemented in practice, taking into account project triangle using the basic method using the praxeological concept.

Keywords: *project, project triangle, project evaluation, project management, praxeology*

1. INTRODUCTION

Currently, the growing interest in the issues of evaluating all activities, both routine and non-routine, is associated with the use of concepts and methods of their evaluation. In particular, referring the issues of evaluation to non-routine activities, which can include projects, the implementation of which is associated with a high often existential risk - organizational, technical, financial, it is justified to discuss the selection of both methods and evaluation criteria (Kozien, 2017, 2018; Kozien, Kozien, 2018b; Kozień, Kozień, 2019; Kozień, 2020; Trocki, 2012; Skalik, 2009). Projects understood as unique and temporary activities implemented in all areas are subject to evaluation, which can be performed by the project manager, stakeholders, as well as an evaluation institution using one or multi-criteria methods. The choice of the context for the assessment of the efficiency of a project is associated with the use of a universal concept of evaluation of all activities, which is praxeology, i.e. the science of efficient operation, which is also used in the science of management in the area of project management due to the ergological nature of both fields. The notion of efficiency in praxeology is understood, inter alia, in a synthetic sense as the totality of the practical values of action,

assessed positively. The fitness category is an overall rating that includes the basic forms of fitness such as efficiency, economy and profitability (Kotarbiński, 1973). Therefore, the efficient implementation of the project can be assessed taking into account the achievement of the project goal and the basic parameters defined by the so-called project triangle, i.e. time, cost and quality. Moreover, in praxeology, actions are assessed ex ante in terms of a gradable goal and ex post in the context of their efficient implementation. In the article, for project evaluation, the published proprietary basic method was used, which is applicable to ex post immediate evaluation of efficient project implementation. The aim of this article is to perform an ex post immediate evaluation of projects implemented in practice, taking into account project triangle using the basic method using the praxeological concept.

2. THE ESSENCE OF PROJECT EVALUATION

Both in practice and in management theory, the issue of assessing people, their actions, and the effects of these actions are developed. These assessments are partial or comprehensive assessments. Due to the diversity of people and forms of activities, single or multi-criteria evaluation concepts are created. So what does the term "evaluation" mean? Assessment (Latin aestimatio) in the common and intuitive meaning means value or estimation, the valuation of something and has a evaluative character related to norms, accepted and applicable standards, as well as model assessment systems (Trocki, Juchniewicz, 2013; Grzeszczyk, 2016). One of the representatives of the praxeology school, T. Pszczołowski, rightly points out that the ex definitione evaluation may be positive or negative, but it cannot be indifferent (Pszczołowski, 1978; Gasparski, Pszczołowski, 1993). Such a generally formulated definition of the term "assessment" in the scope of conducted research always requires clarification of the subject or object of assessment, as well as the definition and definition of quantitative and / or qualitative criteria for their assessment. In this article, the subject of the assessment were projects that are interpreted differently in the field of management science. However, it is worth emphasizing that researchers and practitioners in the field of project management, despite the different interpretations of the term "project", agree in terms of the following two features exposed:

1) Tremeness relating to the duration of the project, which varies in terms of its duration, as well as the determination of the start date and the expected date of completion of its implementation.
2) Uniqueness associated with the result of the project, which is unique or specific due to certain features (*A Guide to the Project Management Body of Knowledge*, 2013; Andersen, Henriksen, Aarseth, 2006; Moris, 1997).

The concept of "project" in the subject literature is extended with other important attributes, such as:

1) Purposefulness refers to taking and controlling actions that bring us closer to the achievement of the goals defined in the project (ISO, 2003; ISO, 2012).
2) Complexity means the interaction of many processes related to the preparation and implementation of the project in terms of the distinguished components with the involvement of significant resources and the use of special methods and techniques (Bentley, 2003; Bradley, 2003).
3) Limitation concerns the different way of organizing the resources necessary to implement the project (Kerzner, 2003).
4) Change in terms of benefits defined by the quantitative and qualitative objectives of the project (Turner, 1993).
5) Value expressed in terms of material and non-material benefits of the implemented project (Kozarkiewicz, Łada, 2010).

The presented features apply to all types of projects classified according to various criteria. The assessment of various types of projects varies in scope due to the number of criteria taken into account. The project can be assessed against one or more criteria. To evaluate projects, you can use the basic parameters, the so-called project triangle of time, cost and quality. The context of the efficient assessment of the project implementation is related to the application of the theory of efficient operation, i.e. praxology. This universal concept applies to the evaluation of activities of all kinds, including projects. In praxeological terms, a project is understood as an ex ante action assessed in terms of a progressive goal and ex post in terms of efficiency. Ex ante evaluation, which concerns the decision to proceed with the project implementation on the basis of, for example, a feasibility study, as well as its ongoing evaluation, has an impact on the ex post evaluation immediately after the completion of the project. Project appraisal is carried out by the project manager or appraisal institutions at various times during its implementation. The evaluation of the efficiency of the project implementation concerns the evaluation of activities undertaken in its scope as well as the result of the activity (Kozień, 2019). In praxeology, the concept of "efficiency" is considered in terms of: synthetic, universal, general, real and methodological (Cabała, 2007). T. Kotarbiński considers efficiency in a synthetic and universal sense. In a synthetic sense, efficiency is the total number of practical qualities of action, assessed positively. If we consider two activities, the first of which is more efficient than the second, it means that it is more effective, economical (economical, efficient), rational, beneficial. Synthetically understood efficiency means in practice having as many values as possible of a good job (preferably all of them) and in the highest possible dimension (Kotarbiński, 1973). This means that the fitness category is the most general performance rating that includes other categories that are specific rating categories. So what is considered to be efficient? - those that primarily achieve the goal and meet the efficiency criteria, subject to grading. In assessing the efficient implementation of projects, the moment of assessment (ex ante, on-line, ex post) as well as quantitative and qualitative criteria should be specified (Kozień, 2017). In the study concerning the evaluation of selected projects, the following assumptions were adopted:

1) The theories of efficient operation (praxeology) were used for the assessment.
2) Efficiency as a general assessment of non-routine activities such as projects is understood in a synthetic sense.
3) The concept of efficiency in the synthetic sense has been interpreted multi-criteria, which means that at least two components of the assessment have been taken into account.
4) The evaluation criteria is the degree of achievement of the project objectives and the basic parameters of the project triangle, which are: time, cost, quality.
5) The efficiency of project implementation was assessed immediately after their completion, according to four criteria: purpose, time, cost, quality.
6) The author's basic method was used for the assessment (Kozień, 2019).

3. PROJECT TRIANGLE PARAMETERS AS THE BASIS FOR EX POST IMMEDIATE EVALUATION OF PROJECT IMPLEMENTATION EFICIENCY

The implementation of each project is based on the creation of a unique product that will meet the customer's needs and expectations. The production of the product as the final result of the project is carried out in the planned time, within a defined and limited budget, and also with the achievement of the planned quality. Time, cost and quality constitute the basic parameters of the project triangle (Fig. 1) (Burke, 1999).

Figure following on the next page

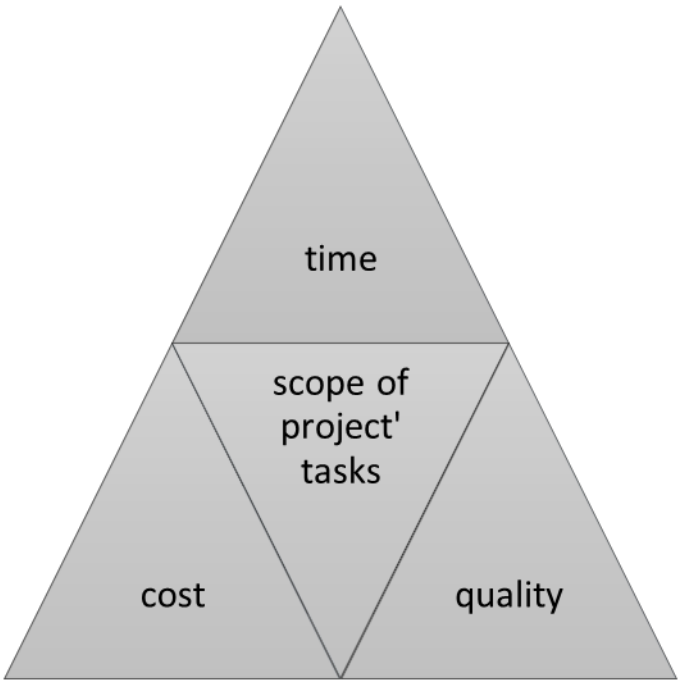

Figure 1: Basic parameters of a project triangle
Source: own study

The parameters of the project triangle are interrelated and interdependent, which means that changing one of them changes the others. Keeping the scope of tasks unchanged (preserving the surface of the triangle) when changing individual parameters (changing the length of individual sides of the triangle) can be interpreted as the use of a different way of project implementation, e.g. increasing the number of members of the project team, using modern technologies, methods related to solving a problem in the project. Shortening the project implementation time while maintaining the planned quality results in an increase in costs by increasing personnel or material expenditure. Changes made to each of the parameters of the project triangle are managerial decisions resulting from changes in external or internal conditions that affect the ongoing implementation of the project. In a situation where the project budget cannot be changed, i.e. it cannot be exceeded, then an attempt to shorten the time of its implementation results in the quality assurance to a limited extent. The dilemma related to changing one of the parameters of the project triangle is closely related to the final evaluation of the project product, the purpose of which is to meet the customer's needs and requirements. The final evaluation of the project product from the praxeological perspective means the use of the overall measure of project performance evaluation, which is efficiency. The praxeological assessment concerns the achievement of the project goal(s) while maintaining the basic parameters of the project triangle: time, cost and quality. The assessment of the efficiency of the project implementation performed immediately after its completion concerns the effects of the action, i.e. the final results of the project. In this aspect, the evaluation of the project's objective(s) means their achievement in terms of meeting the need and comes down to ex ante evaluation of the action in the context of purposefulness, and ex post in the context of effectiveness. The implementation of each project is closely related to the passage of time, i.e. the determination of the time necessary to complete the entire project and individual tasks (Kozień, 2014). Time as a non-renewable resource is of particular importance in the management and evaluation of the project, it results from the irreversibility of its order (time arrow) (Hawking, 1990). Time is a criterion that allows for ex post evaluation of the efficiency of the activities carried out in the project, as a result of which the current state of affairs is transformed into a future more satisfactory state (future orientation).

Cost means spending the resources necessary to achieve the project's goal. It is important to define the sources of project financing (external, internal) and the cost structure. The ex post evaluation of the efficient implementation of the project comes down to stating that the project is implemented in the planned budget or the level of its overrun. On the other hand, the ex post quality evaluation in a project concerns the activities undertaken to ensure it. In practice, these activities consist in meeting the customer's quality expectations, usability and functionality of the designed solutions as well as compliance with applicable standards and legal regulations (Kozien, Kozien, 2018a). Due to the diversity of projects, the quality assessment in the project should be made according to an objective pattern of operation.

4. BASIC METHOD FOR EX POST IMMEDIATE EVALUATION OF PROJECT IMPLEMENTATION

In practice, the most frequently adopted criteria for project evaluation are time and cost, i.e. the directive quickly and cheaply. This approach prompted a broader look at the problem of project evaluation and its instrumentalisation by proposing the author's basic method applicable to project evaluation immediately after its completion. The formulated basic method used to assess the ex post immediate efficiency of the project implementation was based on four criteria such as the purpose and basic parameters of the project triangle, i.e. time, cost and quality. The following assumptions were made in the basic method (Kozień, 2019):

1) The moment of project evaluation refers to the stage of its completion, and precisely defining the evaluation is made immediately after its completion.
2) In praxeology, the attribute of efficiency is assigned to an action that achieves the goal, hence a project in which the goal has not been achieved is assessed as inefficiently implemented (Zieleniewski, 1981).
3) It is assumed that the implemented project meets the conditions of profitability and economy (it should be prepared in this way).
4) It is assumed that efficient project implementation means the achievement of the project goal and its three basic parameters, i.e. execution in accordance with the schedule, in the planned budget and with the assumed quality. The letter designation (B) was adopted for the efficient implementation of the project. It is assumed that the values of the project costs and time of its implementation were adopted in a realistic manner at the stage of its preparation or feasibility assessment.
5) The immediate ex post evaluation of the efficiency of project implementation is qualitative.
6) The main evaluation criterion is the achievement of the project's goal(s):
   s_1=1 – the goal (goals) of the project has been achieved,
   s_1=0 – the goal (goals) of the project has not been achieved.

   It is assumed that the project for which the goal has not been achieved is assessed as improperly implemented.

7) In the basic method, the basic criteria of the so-called the project triangle, i.e. time, cost and quality. The score for each of the three criteria was defined on a four-point descriptive scale. And so for the criterions:
   - time
     s_2=1 – implementation of the project in the planned or below the planned time,
     s_2=0 – exceeding the project implementation time;
   - cost
     s_3=1 – project implementation below or at the planned cost,
     s_3=0 – project implementation cost overrun;
   - quality

s_4=1 – the planned quality achieved in the project,
s_4=1 – the planned quality not achieved in the project.

8) The parameter of the efficiency coefficient s is introduced (1).

$$s = s_2 + s_3 + s_4 \quad (1)$$

9) Four levels of ex post immediate evaluation of the efficiency of project implementation were adopted:
   - B – the project was made efficiently (s_1=1 and s=3),
   - C – the project was carried out moderately efficiently (s_1=1 and s=2),
   - D – the project was executed in a poor manner (s_1=1 and s=1),
   - E – project executed inefficiently (s_1=0 or [s_1=1 and s=0]).

The proposed four-level level of ex post immediate project implementation efficiency in the basic method considers the following four cases.

- B rating
  an efficiently implemented project is considered a case for which all three parameters of the project triangle, i.e. time, cost and quality, have been achieved in relation to the planned values and the goal has been achieved.

If the goal has been achieved and the parameters of the project triangle have not been fully achieved, and the number of exceeded parameters relates to one or two criteria, then two intermediate project assessments are introduced for these cases:

- C rating
  an moderately efficiently implemented project is considered to be the case for which one of the three parameters of the project triangle has not been achieved in relation to the planned value, and the goal, in accordance with the common assumption, has been achieved.
- D rating
  an insufficiently implemented project is considered a case where two of the three parameters of the project triangle have not been achieved in relation to the planned value, and the goal, in accordance with the common assumption, has been achieved.
- E rating
  an inefficiently implemented project applies when the goal has not been achieved, or the goal has been achieved and all three parameters of the projrct triangle have been exceeded, then it is assumed that the project was executed inefficiently.

5. EX POST IMMEDIATE EVALUATION OF THE EFFICIENCY OF THE IMPLEMENTATION OF SELECTED PROJECTS (CASE STUDY)

The research methodology included the following stages:

1) Defining the purpose and subject of the study.
2) Gathering information.
3) Ex post immediate evaluation of the efficiency of the project implementation using the basic method.
4) Formulating conclusions and recommendations.

Six projects were subject to immediate ex post evaluation of the efficiency of project implementation using the basic method. The selected projects were completed and their evaluation was performed immediately after their completion.

Selected cases of projects subject to assessment were diversified in terms of field, complexity, level of innovation. These were the following projects:

1) Culture project (CP) - International Music Festival "Chopin and His Europe",
2) Investment project (IP) - Construction of the Krakow Opera,
3) IT and management project (ITP) - BazEkon,
4) Research and development project (RDP) - Ex and in situ protection of endangered and rare acidophilic species,
5) Acoustic project (AP) - Project of modernization of the music scene in terms of acoustics,
6) Educational project (EP) - Digital school.

Project information was collected on the basis of shared documents and interviews with project managers. The ex post immediate assessment of the efficiency of project implementation using the basic method is summarized in Table 1.

Table 1: Results of the ex post immediate evaluation of the efficiency of project implementation with the use of the basic method

PROJECT NO.	PROJECT	GOAL	TIME	COST	QUALITY	s	ASSESSMENT
1.	CP	1	1	1	1	3	B
2.	IP	1	0	0	0	1	E
3.	ITP	1	1	1	1	3	B
4.	RDP	1	1	0	1	2	C
5.	AP	1	0	0	1	2	D
6.	EP	1	1	1	1	3	B

Source: own research

The basic method (qualitative analysis) was used to assess the ex post immediate efficiency of the implementation of six projects. In the basic method, projects are assessed on a four-level scale: efficiently implemented (B), moderately efficiently (C), executed in a poor manner (D) and inefficiently executed (E) according to the purpose and three parameters of the project triangle. In the basic method for the ex post immediate evaluation of project implementation efficiency, listed in Table 1, two methods of project evaluation were considered. The penultimate column shows the quantitative value of the "s" parameter, while the last column provides the corresponding descriptive assessment of the project implementation efficiency (B, C, D, E). Ex post immediate evaluation of the efficiency of implementation of six investment projects in terms of the analyzed parameters is varied and is as follows: efficiently performed (B) - 3 projects, moderately efficient (C) – 1 project, which means that one of the parameters was exceeded, executed in a poor manner (D) – 1 project, i.e. two out of three parameters to be assessed were exceeded, and the project was ineficiently executed (E) - 1 project, which is equivalent to exceeding three. The basic method can be recommended for the evaluation of projects with a higher degree of novelty, projects using both traditional and adaptive approaches to their management. Due to the adopted evaluation criteria, the use of the basic method is not limited only to the fast and cheap parameters specified in the directive, hence the method can be used to evaluate complex projects with a higher level of innovation. The method can be used for project evaluation by managers, organizations and evaluation institutions, eg the European Union. Ex post immediate evaluation of the efficiency of the project implementation - the basic method provides information on the degree of efficient project implementation, compliance with or exceeding the parameters included in the assessment, as well as the basis for obtaining reimbursement from available funds under the EU framework programs (Kozien, Kozien, 2018). The evaluation of average, inefficient and inefficiently implemented projects should prompt the evaluators to identify the causes of problems that prevented meeting the planned parameters.

Diagnosing the reasons for exceeding the project evaluation parameters should broaden the knowledge and experience of managers, which will allow for more efficient management of them in the future.

6. CONCLUSIONS

In the modern world, the importance of projects is constantly growing and they are implemented in all areas of human activity: politics, economy, public administration, defense, culture, education, and have a significant impact on the development of civilization and technological progress. The level of development of modern organizations depends on the efficient implementation of various projects (Kozien, 2017; Kozien, Kozien, 2017b). Currently, the cooperation of universities with the socio-economic environment and the real possibilities of commercializing the results of scientific and research projects are of key importance for human development (Kozien, Kozien, 2017a). The variety of implemented projects requires specialist development potential related to the project maturity of the organization. Problems defined and solved in projects are characterized by increasing complexity, novelty and originality, hence the need for management and their assessment. The challenge for scientists and practitioners is to improve and create new methods for their efficient implementation. The basic method, used to assess the ex post immediate efficiency of the project implementation, is a multi-criteria method aimed at objectifying the project assessment, going beyond the time and cost parameter. The evaluation of the completed project, and in particular the analysis of potential exceedances, on the one hand eliminates the subjective risk associated with the lack of knowledge and experience of the project manager in its management, and on the other hand, the experience acquired by the manager influences the professionalization of project management in the future. The learning process based on constructive ex post evaluation of problems that occurred during the implementation of the project at its various stages has a positive effect on mastering the key skills of both the organization and managers and members of project teams in the context of managing similar projects in the future.

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CHALLENGES OF TRANSFER OF INTANGIBLE ASSETS IN DIGITAL COMPANIES: CASE STUDY OF EUROPEAN UNION MARKET

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ABSTRACT
The digital economy is growing fast, especially in Europen Union. Yet the meaning and metrics of the digital economy are both limited and divergent. The aim of this paper is to review what is currently known in order to develop a definition of the digital economy, and an estimate of its size and current e-business models. The core of the digital economy is the 'digital sector': the IT/ICT sector producing foundational digital goods and services. Digital technologies are transforming our world and having an important impact on taxation systems. They help to improve their management, offering solutions to reduce administrative burdens, facilitate collaboration between tax authorities, and address tax evasion. There is an accelerating trend of countries testing or planning to implement alternative approaches to ensure effective taxation of the digital economy, so paper presents current research on exampe of Europan Union members.
Keywords: *economy, digitalization, e-business models, taxation, intangible assets*

1. INTRODUCTION

The digital economy is a new form of economy based on digital technologies and represents one of the most attractive opportunities for business growth and development. Nowadays, business is conducted with the application of information and communication technology, which is rapidly advancing and becoming part of more and more spheres of business and private life. The development of technology has led to the emergence of the idea of digitizing the economy, that is, the emergence of the digital economy. The digital economy has been driven by globalization that has brought with it networking, mobility, integration, e-business, direct business, digital products and services, new organizational forms and many more (Burazer, 2017). The true 'digital economy' – defined as "that part of economic output derived solely or primarily from digital technologies with a business model based on digital goods or services" – consists of the digital sector plus emerging digital and platform services (Carlsson, 2004). Digital technologies are transforming our world and having an important impact on taxation systems. They help to improve their management, offering solutions to reduce administrative burdens, facilitate collaboration between tax authorities, and address tax evasion. However, they also transform business models, putting pressure on taxation systems of EU Member States. The digitalisation of the global economy is happening fast and corporate taxation rules are outdated. Todays rules have been built on the principle that profits should be taxed where the value is created, so it is needed to create new techniques of taxation of digital economy.

2. DIGITAL ECONOMY AND E-BUSINESS MODELS

The growth, integration, and sophistication of information technology and communications is changing our society and economy. Consumers now routinely use computer networks to

identify sellers, evaluate products and services, compare prices, and exert market leverage. Businesses use networks even more extensively to conduct and re-engineer production processes, streamline procurement processes, reach new customers, and manage internal operations. While the burgeoning use of electronic devices in our economy is widely acknowledged and discussed, it remained largely undefined and unrecognized in official economic statistics. (Mesenbourg, 2001). Digital transformation towards a digital company is a transformation, not a one-time act, so one should wisely choose the stages of the path and the goals of individual stages. Objectives should be selected to allow the adoption of the necessary organizational skills that are incrementally developed and added, in order to reach a fully digital enterprise. Business digitalization is one of the modern business topics, especially lately. Most companies invest in new technologies and start projects, however, mostly insufficiently, both in terms of intensity and speed of investment. For a bolder step forward, it is important to recognize your position and the benefits that a company can achieve through digitalization, then take a decisive stance and define your own path towards a digital company and boldly invest in what the company focuses on. One of the key challenges should be taken into account- how fast and comprehensively should we go on the path of digital transformationn. It is especially important to harmonize the speed of its own transformation with the digital transformation of the industry in which the company operates and in relation to the speed of competitors. The rapid transition towards a "digital economy" was enabled by a converging set of innovations. Computing saw the development of the semiconductor transistor, integrated circuit, personal computers (PCs), operating systems, and graphical interfaces. The physical layer of telecommunication was enabled via the emergence of optical fiber and new wireless communication technologies, while networking saw the development of the Internet (essentially packet switching) and the World Wide Web. These advances combined to realize a series of new applications of information and communications technologies (ICTs) such as business software, e-mail, and e-commerce. (Ayres,& Williams, 2004). Regarding these innovations , it is possible to identify key e-business models which are defined later in chapter.

2.1. E-marketing

E-promotion is a cross-functional process for planning, executing and analyzing communications aimed at attracting, maintaining and multiplying the number of clients on the Internet. Using innovative technologies, e-entities in tourism hospitality can improve the effectiveness and efficiency of the traditional communication mix. (Ruzic et al., 2009). Techniques and media of modern marketing communication have influenced the accelerated obsolescence of traditional forms of mass communication. The concept of e-promotion is being developed, as integrated marketing communication in which new communication technologies enable marketers to avoid the problem of distance from the customer caused by long distribution chains, internationalization of the market and concentration on one-way forms of marketing communication such as advertising (Figure 1).

Figure following on the next page

Figure 1: E-marketing process
(Source: www.educba.com)

New technologies allow subjects to connect directly with consumers by creating interaction and relationships with them. Interactive media allow marketers to establish a dialogue with consumers, unlike traditional media that support only one-way and unfocused communication from entities to the end consumer.

2.2. E-distribution

E-distribution is a set of interconnected organizations that participate in the process of making goods available to customers (consumers) where this process is supported by information technology, especially the Internet. In this case, new technologies transform the existing channel structures and relationships between intermediaries in the distribution chain. The e-distribution system provides a number of benefits to the organization that uses it. First of all, more efficient and better business processes should be emphasized, which in turn leads to high profitability. Like any technology, it is necessary to plan the cost of implementing such a system. The level of benefits and the time of introduction of the mentioned system depends on the branch of industry and the level of introduction. With the development of Internet business, for example, tourists are provided with a number of booking options, in addition to those already mentioned, through specialized sites or booking services. The services integrate all participants in the hotel market, and everything is automated and technically simple. In terms of content, tourist catering consists of a set of individual services (air transport services, accommodation, rent-a-car, etc.), for which specialized reservation services on the Internet have been developed. The international tax regime in relation to multinational enterprises is ineffective and a rethink is required. (Nellen, 2015). While taxing profits according to value creation is detected as the new paradigm in international taxation, this review reveals that the understanding of the digital economy and corresponding reform proposals for taxation are premature (Olbert & Spengle, 2017), what will be explained in primary research part of paper, done by authors.

3. RESEARCH ON THE IMPACT OF PROFIT DIVERSION THROUGH THE TRANSFER OF INTANGIBLE ASSETS IN DIGITAL COMPANIES

Regarding the current problems of taxation in the context of digitalization of business, after the initial initiative at the OECD level aimed at solving the problem of digital economy, the EU in order to achieve uniform measures at the EU level in March 2018 proposed two legislative

proposals: short-term and long-term: 1. Proposal for a Council Directive on a common system of taxation on digital services taxing revenue from the provision of certain digital services (short-term solution) and 2. Proposal for a Council Directive laying down rules on the taxation of companies' profits from significant digital presence (long-term solution). The tax would be collected and paid in one Member State, which would pass on the corresponding tax to the other Member States. The proposal covers the taxation of only large companies with global revenues above € 750 million and revenues in the EU of more than € 50 million. According to a European Commission impact study, the digital services tax proposal would cover about 112 companies. Even where there is a permanent establishment, tax can be avoided by shifting mobile intangible assets to low tax jurisdictions. Not only can intangible assets be shifted fairly easily from one jurisdiction to another, but they also are difficult to value. In the absence of rules that are robust against abuse, this opens significant opportunities for aggressive tax planning, which allow more digitalised companies to benefit from certain tax regimes and push down their tax burden. This is done via intra-group payments (royalties) for which an objective transfer price is difficult to determine. Profits allocation rules follow contractual arrangements of transactions between intragroup companies. Indeed, legal ownership of intangibles is a decisive factor for determining profits, resulting in entities with little business activity potentially benefitting from high profit allocation (Olbert & Spengel, 2017). A detailed examination of tax rules confirms the profit shifting opportunities multinational enterprises with sizeable intangible assets have. Out of seven important tax planning structures identified by Ramboll Management Consulting and Corit Advisory, three involve the use of intellectual property. The same study determines the prevalence across Member States of tax rules that are necessary or conducive for the set-up of aggressive tax planning schemes. It identifies 15 Member States whose tax frameworks have elements that directly promote or prompt an aggressive tax planning structure. All but two Member States show a lack of anti-abuse rules. ZEW (2016) estimates the impact of aggressive cross-border tax planning schemes on the effective average tax rates. It shows without ambiguity that placing intellectual property in a country with a generous intellectual property box allows lowering the effective average tax rate significantly - and more than any other tax planning structure. Econometric studies evidence the importance of the location of intangibles, and notably intellectual property, in profit shifting strategies. Authors find that for European multinational enterprises a one percentage point increase in corporate income tax rate reduces intangible assets in the balance sheet by about 1.7%. (Dischinger & Riedel, 2011). Several contributions evidence more generally the significant effect of corporate taxation on the number of patent applications and relocations (Karkinsky & Riedel, 2012) (Böhm et al., 2012). More evidence on this is summarised in further explanation. The views of stakeholders have been tested on this topic as well: 73% of respondents to the open public consultation as well as 14 out of 21 national tax authorities agree with the statement that "the current international taxation rules allow digital companies to benefit from certain tax regimes and push down their tax contributions.

4. CONSEQUENCES OF INTANGIBLE ASSETS TRANSFER IN DIGITAL ENTERPRISES

Econometric evidence shows the importance of the location of intangible assets, and notably intellectual property, in profit shifting strategies. First, intellectual property is difficult to value, with often no unrelated third-party transaction to determine an arm's length price. This makes it easier to shift profits through transfer-price manipulation. Second, corporate taxation, notably the preferential tax treatment of intellectual property, influences the location of research activities, of legal patent ownership and of the number of patent applications. A detailed examination of tax rules confirms the profit shifting opportunities multinational enterprises with sizeable intangible assets have.

Out of seven important tax planning structures identified by Ramboll Management Consulting and Corit Advisory, three involve the use of intellectual property. The same study determines the prevalence across Member States of tax rules that are necessary or conducive for the set-up of aggressive tax planning schemes. It identifies 15 Member States whose tax frameworks have elements that directly promote or prompt an aggressive tax planning structure. All but two Member States show a lack of anti-abuse rules. ZEW (2016) estimates the impact of aggressive cross-border tax planning schemes on the effective average tax rates. It shows without ambiguity that placing intellectual property in a country with a generous intellectual property box allows lowering the effective average tax rate significantly - and more than any other tax planning structure. The Anti-Tax Avoidance Directive, which will enter into force in 2019 (with some exceptions), should however strengthen the anti-abuse framework in all Member States through the introduction of a number of legally binding anti-abuse measures.

Table 1: Overview of studies evidencing the link between aggressive tax planning and intangible assets

Dischinger and Riedel (2011)	Europe (1995-2005)	Intangible assets in the balance sheets	- 1 p.p. increase in the average tax difference to all other group affiliates increases the subsidiary's intangible assets in the balance sheet by about 1.7%
Karkinsky and Riedel (2012)	Europe (1978-2007)	Patent holdings	+1 p.p. of CIT rate decreases patent applications by about 3.5%-3.8% (depending on the empirical model)
Griffith et al. (2014)	Europe (1985-2005)	Patent holdings	+1 p.p. of CIT rate decreases patent applications by about 0.5%-3.9% (depending on the location)
Beer and Loeprick (2015)	World (ORBIS) (2003-2011)	Tax sensitivity of reported profits and endowment of intangible assets	Tax sensitivity of reported profits to 1 p.p. increase of the CIT rate increases from 0.76% to 1.2% for subsidiaries with an above median intangible assets endowment.
Böhm et al. (2012)	Europe (1978-2007)	Probability of patent relocation to tax haven and effectiveness of CFC legislation	An increase of 1 standard deviation of patent value increases the probability of patent relocation in a tax haven by about 16%. This probability of patent relocation in a tax haven is reduced by about 1/3 by CFC legislation.
Alstadtsaeter, Barrios, Nicodeme, Skonieczna and Vezzani (2018)	World (2000-2011) top 2,000 corporate R&D investors	Patent holdings	+ 1 p.p. of CIT rate decreases patent applications by about 13.1% (pharmaceutical), 1.5% (ICT sector) and 5.4% (car sector). The presence of patent boxes has a strong and significant effect on patent applications.
Skeie et al. (2016)	World (ORBIS and OECD-PATSTAT) (2004-2010)	Tax sensitivity in patent location	5p.p. of preferential tax rate on patent income is associated with 6% increase in patent applications.
Sorbe and Johansson (2016)	World industry level (world Input-output Database) (1995-2011) and firm level (ORBIS) (2009)	Impact of strong anti-avoidance rules on tax sensitivity of investment	At the 75th percentile of the distribution of industries on profit-shifting incentives, moving from a moderate anti-avoidance strength to a strong stance is associated to about tripling the tax sensitivity of investment.

In Tab. 1. the authors summarizes the findings of recent studies on the use of intangibles for profits shifting purposes (Based on data from the Buerau van Dijk Orbis database).

Aggressive tax planning opportunities using Intellectual Property are not unique to the digital economy, but they are bigger. Given the larger emphasis on intangible assets in the digital economy and the role of intellectual property for the sector, as discussed above, the opportunities are likely more significant than for traditional businesses.

5. CONCLUSION

It is expected that the development of the digital economy will follow a strong growth pattern over the next decade. The digital transformation brings significant benefits to society. It enables higher productivity across the economy, which leads to lower prices, higher real incomes and to higher standards of living. It also facilitates the emergence of new and better products and services with fewer resources, reduces physically demanding efforts and, for example, exposure to dangerous activities in the workplace. Intangible assets can fairly easily be shifted from one jurisdiction to another, which in the absence of abuse-proof rules opens significant opportunities for aggressive tax planning. The high mobility of intangible assets allows more digitalised companies to benefit from certain tax regimes and push down their tax burden. To sum up, no significant progress has been made, or is expected within the next couple of years, in finding structural and comprehensive solutions to addressing the challenges of taxation brought about by the digitalisation of the economy. Some progress has been made in addressing specific abuse channels, notably in relation to beneficial regimes targeting intellectual property. Proposed revisions to permanent establishment rules target primarily avoidance structures employed by online retailers of physical goods and fail to establish a nexus based on digital presence instead of physical presence.

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THE IMPACT OF THE FIRST WAVE OF COVID-19 PANDEMIC ON GENDER EQUALITY IN LITHUANIA

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ABSTRACT

It has by now become clear that the COVID-19 pandemic will not only have impact on human health but will also have economic consequences. Researchers around the world are already talking about how badly this crisis will affect women, who are already experiencing the consequences of gender inequality daily. The purpose of this paper is to examine the situation of women in the labor market during the COVID-19 pandemic and assess the potential impact on equality between men and women in Lithuania. The pandemic is still ongoing, but the available operational data reveals whether the disproportionally greater negative impact on women mentioned in the scientific literature will exist in Lithuania as well. To test the hypotheses on Lithuanian case, this paper conducts a thorough descriptive statistical analysis of the data without which it would be difficult to adopt approaches that are more rigorous. The descriptive statistical analysis is enough in this case, since the data analyzed cover the entire population, not a sample. The research results reveal that at the beginning of the pandemic, women suffered greater consequences because, first, they were more likely to stay at home to be with children after school and kinder gardens were closed. This temporary incapacity has reduced women's earnings. Secondly, COVID-19 had a greater impact on travel agencies, air passenger transport, restaurants, and catering, which accounted for a larger share of women employment. As a result of this higher burden on these economic activities, more women have been laid off than accepted, and although this balance is improving, it is significantly worse than that of men. And while within a few months, the incomes of working men and women have returned to pre-pandemic levels, it is clear that women's incomes have fallen more and it has taken a longer period for incomes to start growing again. The topic is very new, and the COVID-19 virus is still affecting the country and its impact will have to be assessed after the end of this whole pandemic. Therefore, descriptive statistical analysis is used to validate the hypotheses that allow to highlight trends in Lithuania and further possible directions of research. This review can be a starting point to gender equality analysis in Lithuania as the most recent data available to hypothesize the potential impact of COVID-19 on equality between men and women is analyzed. There is hardly any data available on the topic yet because the effects of COVID-19 have not abated and will need to be evaluated at a later stage. Instead, this work provides an overview of the available statistical data and makes informed predictions on what is likely to happen during the crisis and after.

Keywords: *COVID-19, gender equality, economic downturn*

1. INTRODUCTION

Gender differences and inequalities remain an important issue in Europe. According to Eurostat, in 2019, 32,2 per cent of women were inactive due to caring responsibilities in comparison to 4,5 per cent of men. Gender pay gap in adjusted form (per cent of average gross hourly earnings men) was 14,8 in 2018 and was decreasing since 2012 when it was about 16,4 per cent. It is clear enough that the COVID-19 pandemic will affect not only public health but also economic, political, and social phenomena. In this paper, the author provides some first results on how this economic downturn in the first half of the year is going to affect women and men differently.

Following the announcement of quarantine from March 16 to June 16 schools and kinder gardens were closed and this meant that children had to be cared for by their parents at home. The need to stay at home with children has reduced women's severance from work, as women are more likely than usually to care for children while they are ill. Thus, the already considerable burden of caring for the family on women has increased. On the other hand, COVID-19 crisis may change employers' attitude to more flexible work schedules. This can be a great opportunity for mothers and fathers to have more flexibility in their work and thus help to reconcile family life and career in future. Unfortunately, it is difficult to assess these consequences so far. In this article, the author analyzes the situation in the labor market during the pandemic and summarizes the first available results.

2. THEORETICAL BACKGROUND

Despite the fact that biologically women are not more at risk to COVID-19 than men are, it seems that women are risking to pay a higher price for the crisis than men (ILO Monitor, 2020; OECD, 2020; Blasko et al., 2020). There are several areas through which women are exposed in the face of this crisis and they are analyzed next, in this section. Women in the first lines. Firstly, women account for a large proportion of workers in front-line occupations, especially in the health and social care sectors (ILO Monitor, 2020; OECD, 2020). Long working hours in intensive care units, a lack of personal protective equipment and other resources, understaffing and intense emotional stress expose health workers to higher risks of infection and transmission, especially in low- and middle-income countries (ILO Monitor, 2020). Women's duty of care. Women traditionally do a disproportionally large share of care work and other duties in households, and they are also likely to be more affected by increased care duties during the crisis (Blasko et al., 2020; ILO Monitor, 2020). The closures of early childhood education centers, care services and schools, along with the unavailability of older relatives to provide support, have exacerbated care demands during the crisis (ILO Monitor, 2020; OECD, 2020). Looks like COVID-19 will amplify women's unpaid work burdens. For example, the widespread closure of schools and childcare facilities will not only increase the amount of time that parents must spend on childcare and child supervision, but also force many to supervise or lead home schooling. Much of this additional burden is likely to fall on women. Similarly, any increases in time spent in the home due to confinement are likely to lead to increased routine housework, including cooking and cleaning. Fulfilling these demands will be difficult for many parents, especially for those that are required to continue working (OECD, 2020). These include the pressure on at least a small fraction of men to take over part of the traditional female duties; the increased visibility of several feminized and under-recognized occupations; and the rapid spread of telework opportunities, which could potentially reshape men's and women's work-life balance in the future (Blasko et al., 2020). Hardest hit for women. In contrast to previous crises, women's employment is at greater risk than men's, particularly owing to the impact of the downturn on the service sector (ILO Monitor, 2020). In recent recessions such as the one in 2008, job losses for men were much higher than for women. One of the reasons is that relatively more men work in industries affected by downturns while women work in less cyclical sectors such as education or health care (ILO, 2020). Women's labor supply is less volatile than men's labor supply. Moreover, for women cyclical volatility is a smaller fraction of total volatility compared to men, i.e., less of the variation in female labor supply is related to aggregate economic fluctuations (Alon et al., 2016). The ILO has rated four sectors as being at high risk of severe COVID-19 impact in terms of job losses and a decline in working hours: accommodation and food services; real estate, business and administrative activities; manufacturing; and the wholesale/retail trade (ILO Monitor, 2020). In 2020, 527 million women, representing 41 per cent of total female employment, are employed in these sectors, compared to 35 per cent of total male employment (ILO, 2020).

Collins et al. (2020) found out that mothers with young children have reduced their work hours four to five times more than fathers and the gender gap in work hours has grown by 20–50 per cent. The bigger their losses in employment during the lockdown phase and the greater the scarcity of jobs in the aftermath of the COVID-19 crisis, the harder it will be for women's employment to recover. This crisis therefore threatens to nullify women's gains in the labor market along with the positive (albeit slow) changes in the distribution of unpaid care work (ILO Monitor, 2020). ILO identified four areas in which crisis is disproportionately affecting women workers (Figure 1).

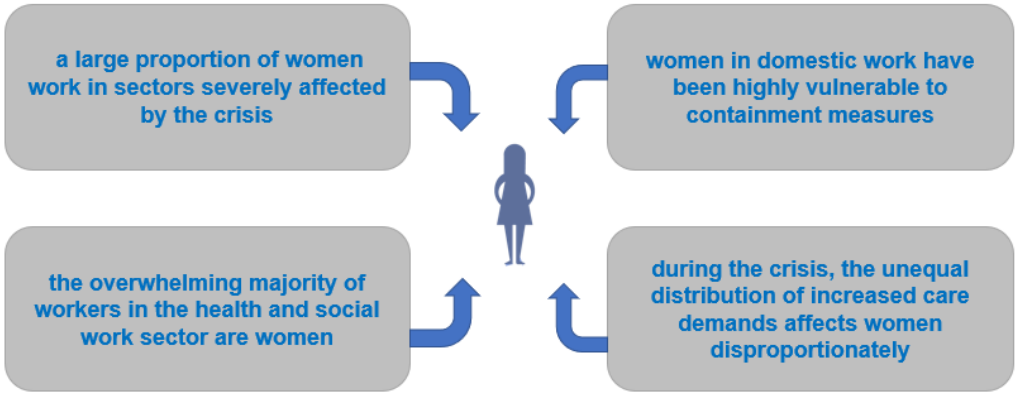

Figure 1: The crisis is disproportionately affecting women workers in four main ways (Source: ILO Monitor, 2020)

New opportunities. Many businesses are now becoming much more aware of the childcare needs of their employees and respond by rapidly adopting more flexible work schedules and telecommuting options. <...> As a result, in many places mothers and fathers alike will gain flexibility in meeting the combined demands of having a career and running a family (Alon et al., 2020). A second channel runs through social norms and role models in individual families. While in many cases mothers will pick up a large share of the additional childcare (and home schooling) during the crisis, there will also be a sizeable fraction of families where role models will be reversed (Alon et al., 2020). Thus, the scientific literature sees not only negative but also possible positive consequences. To this day, it is difficult to analyze whether businesses will take a more flexible approach to working from home, thereby increasing the chances of reconciling work and caring for the family. However, the first statistical data allow us to analyze how much women felt the negative consequences of the pandemic and how much this hampered their opportunities in the labor market.

3. HYPOTHESES AND RESEARCH METHODOLOGY NAME THREE

Literature review allows for the author to formulate some hypotheses in this section.
Firstly, it is easy to predict that after the closure of kinder gardens and schools, a greater burden of childcare placed on women. Therefore, first hypothesis is formulated:

- Hypothesis 1. The majority of those who had incapacity for work due to childcare were women.

A review of the literature has shown that the COVID-19 crisis was different from previous ones and had a greater impact on economic activities in which most workers were women. It is probable that the situation in Lithuania was the same, so the author concludes with a hypotheses saying that:

- Hypothesis 2. During the pandemic, the acceptance-dismissal balance of women was more negative than that of men.

- Hypothesis 3. The pandemic affected women more, as more of them worked in sectors more affected by COVID.

Withdrawal from the labor market due to childcare and the decline in COVID-19, which has had a greater impact on some sectors, is likely to have led to a further decline in women's earnings. Therefore, it is hypothesized that in the case of Lithuania:

- Hypothesis 4. The average earnings of women shrank more men.

The slower growth of women's earnings may have led to a wider gap between men's and women's earnings, so the fifth hypothesis is finally formulated as follows:

- Hypothesis 5. The fall in women's wages has led to an increase in the gender pay gap

To test the hypotheses, this paper conducted a thorough descriptive statistical analysis of the data without which it would be difficult to adopt more rigorous approaches. The aim of this research is to find out as much as possible from statistical data about the situation of women in the labor market at a time when the COVID-19 crisis is still ongoing. This baseline analysis allows for the first time in Lithuania to assess possible impact of COVID-19 crisis on women employment and income gender gap. The descriptive statistical analysis is enough in this case, since the data analyzed cover the entire population, not a sample. Therefore, descriptive statistical analysis is used to validate the hypotheses that allow us to highlight trends in Lithuania and further possible directions of research.

4. RESULTS AND FINDINGS

COVID-19 had a negative impact on women's employment, as it was mainly they who stayed at home to look after children after quarantine. Following the announcement of quarantine from March 16 to June 16 schools and kinder gardens were closed, and this meant that children had to be cared for by their parents at home. The need to stay at home with children has reduced women's severance from work, as women are more likely than usual to care for children and other family members. Statistics show that 67 percent of parents caring for children at home were women (Figure 2). Men were less likely to stay at home with children. It is important to note that under normal conditions, the proportion of nursing women is even higher and seeks 76 percent. So, Hypothesis 1 saying that women were more likely to face incapacity for work due to childcare after school closures cannot be rejected.

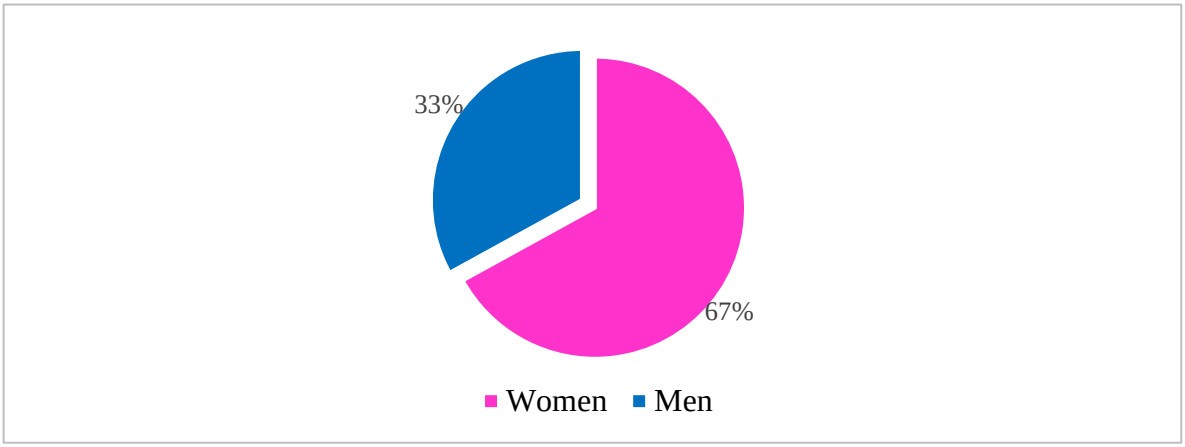

Figure 2: Persons who were unable to work due to childcare during the quarantine period, by sex (per cent)
(Source: State social insurance fund)

In March and April, the acceptance-dismissal balance of men and women was similar: both men and women were more often dismissed than accepted. However, since May, the men's acceptance-dismissal balance has started to improve, and more men have been accepted than dismissed each following month. Meanwhile, the female acceptance-dismissal balance remained negative until July. This shows that women find themselves in a worse position than men. Thus, in the case of Lithuania, the second hypothesis cannot be rejected either, as at least during the pandemic women's acceptance-dismissal balance was worse than men's.

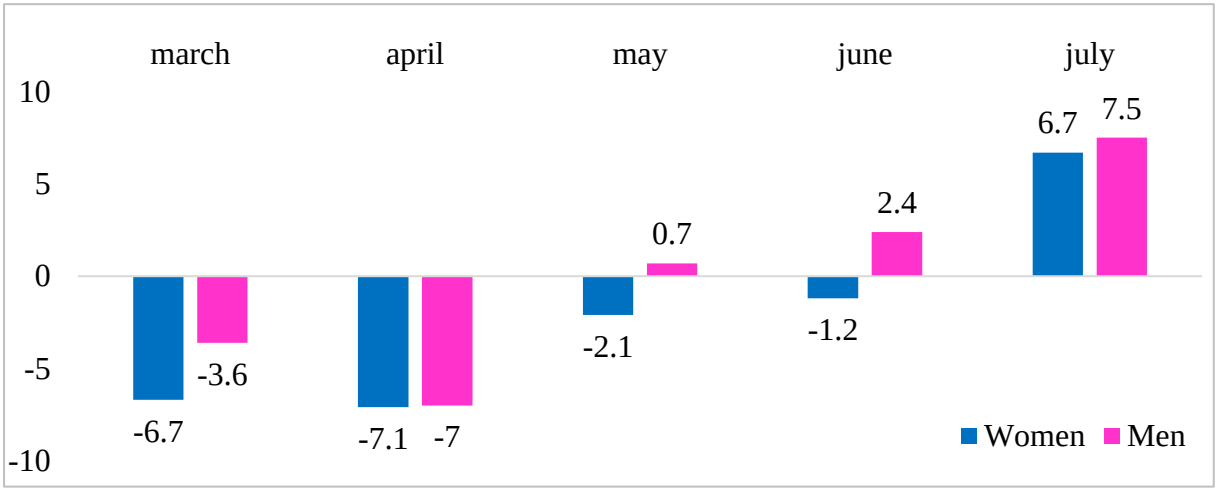

Figure 3: Acceptance-dismissal balance by sex (thousand people)
(Source: State social insurance fund)

Relatively more women worked in services which were more affected by COVID-19 crisis. During the period from March to July, the number of insured persons decreased the most in such occupations as travel satellites, travel consultants, chefs where share of working women consists over 50 per cent (Table 1).

Name of occupation	Change in the number of insured persons compared July with March, %	Share of working women, %
travel satellites	-46	68
steam engine and boiler operators	-35	7
travel consultants	-18	70
chefs	-17	88
higher education teachers	-11	58
household waste sorters	-11	48
operators of fiber preparation, spinning machines	-10	75
metal polishers	-10	10
glass and ceramic production plant operators	-9,8	16
hotel receptionists	-9	85

Table 1: Occupations with the largest negative change in the number of insured persons
(Source: State social insurance fund)

Thus, as observed in the literature, a large proportion of women work in sectors severely affected by the crisis. In this case, the Hypothesis 3 cannot be rejected either. The number of insured persons is the slowest recovering in those sectors that were most adversely affected by quarantine (Table 2). For example, the number of people insured in passenger transport in July was still 44 percent lower than in March, and half of those working there were women. Significant negative changes in the number of insured persons were recorded in the activities of travel agencies, the share of women working there is about 73 percent. Thus, COVID-19 had a strong impact on those activities in which a higher proportion of women were employed.

Name of economic activity	Change in the number of insured persons compared July with March, %	Share of working women, %
passenger air transport	-44	51
activities of outsourced information service centers	-34	66
defense activities	-31	30
organization of meetings and business events	-18	58
activities of tour operators	-18	73
travel agency activities	-18	74
manufacture of furniture for institutions and trade enterprises (shops)	-18	25

Table 1: The number of insured persons in these economic activities was most negatively affected
(Source: State social insurance fund)

In general, the number of women insured in July had not yet returned to the level of March, and the number of men was already the same as in March (Figure 4).

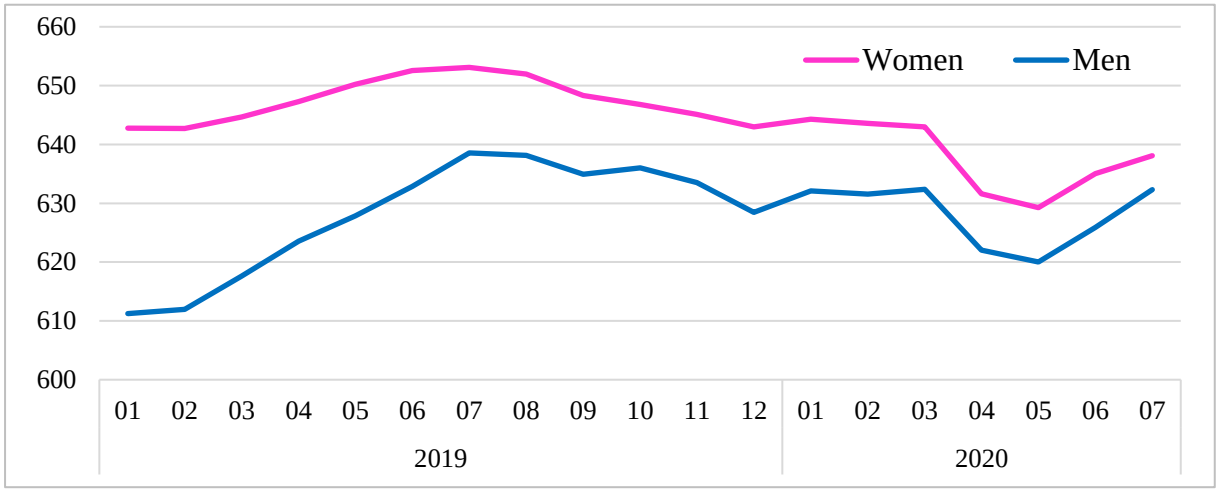

Figure 4: Number of insured persons (thousand people)
(Source: State social insurance fund)

And while within a few months, the incomes of working men and women have returned to pre-pandemic levels despite the fact that in April, compared to February, women's income fell more, that is, by 5 per cent, while men's labor income shrank by 2.5 per cent. However, it later recovered and compared to July and February, women's earnings rose 13 percent and men's 8 percent. Changes in labor income also lead to a changing income gap between men and women.

In 2019, women's labor income grew faster than men's and this helped reduce the gender pay gap. This year, during the pandemic, the labor income gap temporarily widened during the quarantine period, but a couple of months after the quarantine, the labor income gap returned to the level of the beginning of the year.

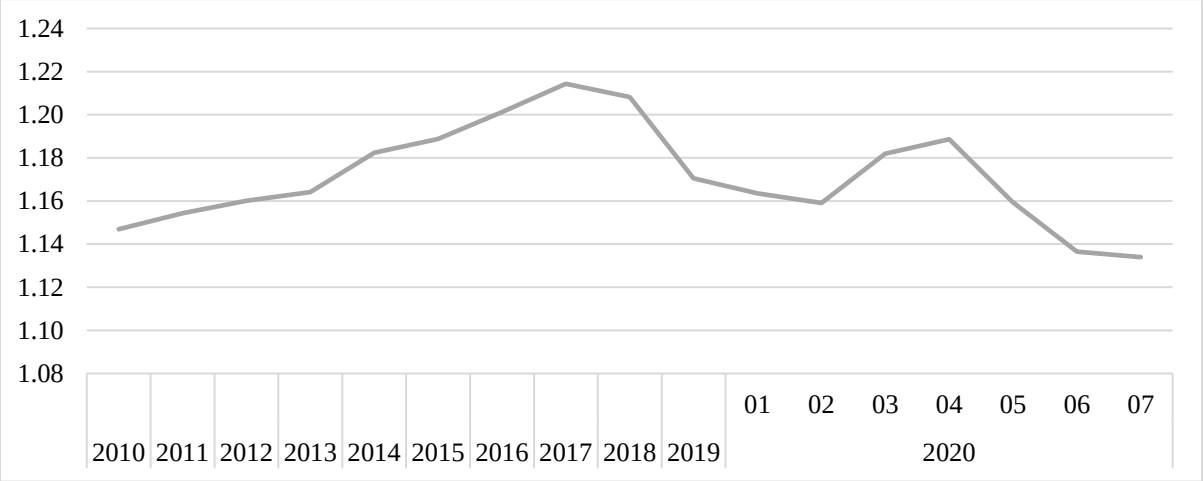

Figure 5: Labor income gap
(Source: State social insurance fund)

The existing gap between men's and women's earnings is 12 percent and both 16 percent of men and 16 per cent of women, is below the at-risk-of-poverty rate. However, in old age, the income gap has even greater negative consequences. The old-age pension received by men is on average 19 percent higher than that of women. And among women aged 65 and over, 39 percent are poor, while among men, that number is half as low at 18 percent. Thus, income disparities have a particularly strong impact in old age, when the main source of income is the old-age pension, which is lower due to lower participation of women in the labor market and lower wages throughout their careers.

5. CONCLUSION

The first analysis of the statistics shows that during the first wave of COVID-19, women were more burdened as they stayed at home with their children more often, leading to a reduction in their earnings. The research results reveal that at the beginning of the pandemic, women suffered greater consequences because, first, they were more likely to stay at home to be with children after school and kinder gardens were closed. This temporary incapacity has reduced women's earnings. Secondly, COVID-19 had a greater impact on travel agencies, air passenger transport, restaurants, and catering, which accounted for a larger share of employed women. As a result of this higher burden on these economic activities, more women have been laid off than accepted, and although this balance is improving, it is significantly worse than that of men. And while within a few months, the incomes of working men and women have returned to pre-pandemic levels, women's incomes have fallen more, and it has taken a longer period for incomes to start growing again. Analysis shows the challenges for families during the current crisis are unprecedented, severe, and falling disproportionately on women. There are a few policy options available that governments could use to address specific challenges families are likely to face during the coming crisis. Government should subsidy to replace pay for workers who need to provide child care during the crisis due to closures of schools and are therefore unable to work, conditional on a continued employment relationship (i.e., workers can return to work immediately after the crisis). During this pandemic in Lithuania, during the quarantine period, parents were able to receive paid certificates of incapacity for work, which allowed to

reduce the negative impact of the pandemic in difficult times and ensure at least part of the lost income. Unfortunately, state resources are limited, so more flexible working conditions should become even more important in the long run and able to address this sensitive and long-standing complex issue of gender equality.

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ABSTRACT

The comprehension of the text is one of the essential skills in daily practice, which is crucial for state organizations, authorities and other organizations. They often use standardized and structured textual documents such as guidelines, manuals, instructions, methodologies, etc. This type of textual documents is usually hard to understand and not very user-friendly. The quality and effectiveness of their employees´ work in such organizations depend on their understanding of content and its application in daily work. The study aimed at the efficiency of knowledge transfer through above mentioned textual materials. Textual materials are improved and adapted by use of already known restructuration procedures. Our approach is based on the text structure of the knowledge unit: problem situation, problem, goal and solution. In our experiment, 25 participants were involved. We gained the results using eye-tracking technology in order to understand the ability of employees of an organization to work with the procedural knowledge representation. We adapted the text of the human resources manual for employees in a large public organization. The visual attention and participants´ looking behaviour during the reading process were analysed. In our study, we verified acquired knowledge through a didactic test. We obtained results for the adapted and original version of the human resources manual. Participants who worked with the adapted version were in the whole experiment almost 20% of spent time faster than participants who worked with the original one. Our approach is applicable for any organization willing to improve knowledge transfer, as well as out of an organization between their business partners, similar associations and networking groups

Keywords: *Eye-tracking, Knowledge-structured texts, Knowledge transfer, Visual attention*

1. INTRODUCTION

Knowledge-structured textual materials application was already used and represented in research such as education implication and in experiments with students. It seems to be beneficial also for organizations, that work internally with documents such as guidelines, manuals, instructions, methodologies. If the organizations construct similar documents with the same procedure, their employees can work with such documents faster and/or more precise, because knowledge-structured documents can also support their better understanding of those documents. We can benefit from already known studies related to textual materials such as Turcotte et al. (2018) who focused on different textual materials and their structures, as well different text styles and their purpose for pedagogy. It's something that we can use in practice and business. Reading processes and readers are present not only in educational fields of studies but in the business world too. Every organization wants to invest less time in their processes or some of those processes transform to automated/semi-automated. It's already very well known that time is a very precious commodity in the business world (Singer Trakhman et al., 2019; Ansari, Glawar, and Nemeth, 2019; Holmqvist and Andersson, 2017). As from the above mentioned, commodities such as time and as well knowledge and information are considered nowadays to be the most productive source for creating and increasing any value in any organization, higher standard and better competitiveness. Those replace traditional resources from previous decades, such as energy and capital, or much earlier, such as labor and land. Nonaka and Takeuchi (1995; 1997) believe in two existing directions in knowledge and knowledge economy. They believe that there exist knowledge workers who are a source of knowledge in an organization, and knowledge is transferred from them to the rest of such an organization. Then there are service workers who act as management staff based on the developed knowledge from knowledge workers. It's very important that organizations develop their knowledge and knowledge of their employees on every day basis. Also, organizations should develop not only the education part and increase their investments, but at the same time they should be a part of research and development of knowledge itself, as well involved in cooperation with information technologies and new technologies in general. Without this part of focus, it is almost impossible for any organization to survive in the new competitive world (Nonaka et al., 2014). From above mentioned the aim of this paper is focused on usage of knowledge-oriented text through textual materials in organizations. The goal of the paper is narrowed to evaluation of HR aspects of a large public organization. Also, we built and described research question of the experiment to this article as:

- RQ: Are there any significant differences in final test results between employees from one department of the specific company, who worked with common- or knowledge-structured texts?

2. MATERIALS AND METHODS

2.1. Experiment description and used textual materials

In this study, we compare two types of textual materials. First type is called knowledge-structured text and can express explicit knowledge by using knowledge units representation (Dömeová, Houška and Houšková Beránková, 2008; Houška, Dömeová and Kvasnička, 2010). Second type is called common-structured texts and is represented in implicit form (Horáková and Houška, 2016). In this experiment both types of textual materials were identically the same except those parts for knowledge-structured texts. The common-structured text in the experiment is a standard methodical material for the HR issues of a large public company in the Czech Republic. The knowledge-structured text is rewritten text from common-structured text according to the methodology by Houška and Rauchová (2013). Both texts were written in Czech and dealing with occupational health services and selected related activities in the regime on Act No. 373/2011 Coll., on specific health services, as amended wording and Decree No.

79/2013 Coll., on the implementation of certain provisions of the Act No. 373/2011 Coll., on specific health services (Decree on occupational health services and certain types of assessment care), as amended. The knowledge-structured text was 23 pages in PDF format due to the process of rewriting. The common-structured text was 22 pages in PDF format. The knowledge-structured text was scored as suitable for 17-18 years old (US twelve graders) readers. So it means that even readers who do not enter (or do not want to enter) College or University are able to read this text. Readability level was classified as difficult to read, Flesch-Kincaid Grade Level: 12. The common-structured text was scored exactly the same as the knowledge-structured text. It means that rewriting the text was exactly the same only with a different representation of knowledge (Automatic Readability Checker, 2019). The goal in the experiment was to have as the minimum 12 right answers. Every participant had maximally 3 trials to have the minimum of right answers and the whole test (including those trials) was time-limited for 45 minutes. There were 15 questions and only one choice was right. See below an example of both types of textual materials from English methodological manual:

- **Original text**
  The core is the main module. It drives all activities during recording and manages call processing from the beginning of the stream until all data has been saved. This critical service must be running to guarantee normal system operation.
- **Knowledge text**
  When it is necessary to drive all activities and manage call processing from the beginning of the stream until all data has been saved during recording to guarantee normal system operation, the main module (core) as the critical service must be running.

2.2. Eye-tracking apparatus and areas of interest

The procedure of this experiment to measure participants´ visual attention and looking behaviour during the reading process was based on eye-tracking technologies. In this case, a stationary eye tracker provided by Tobii was used, which has a sampling rate of 60 Hz. The given eye tracker is oriented up to 160° (horizontally), there is a minimal loss of sensing during extreme eye movements, etc. Eye tracker must always have been calibrated for each individual participant to match the data and settings to their personal characteristics in the head and eye area (Bojko, 2013; Holmqvist, et al., 2011; Holmqvist and Andersson, 2017; Sánchez-Ferrer et al., 2017). Eye movements on the screen were monitored using two basic groups of parameters. One was based on eye fixation in specific areas of interest. The second works with visits participants´ eyes in areas of interest. The length of the visit includes all fixations that occurred during one visit within the area of interest (AOI), and the saccadic duration between these fixations within the area of interest (AOI) until it is fixed outside the area of interest (AOI). Number of visits is the total number of all visits within the area of interest (AOI). Number of visits and duration of the visit metrics are very useful because research is focused on visual attention and looking behaviours of participants. On the other hand, the duration of fixations is the sum of the durations of all different fixations in the corresponding area within one specific area of interest (AOI) (Bojko, 2013; Holmqvist, et al., 2011; Holmqvist and Andersson, 2017; Liu, 2014; Kim et al., 2012).

2.3. Participants´ characteristics

In total 25 participants (employees) attended the experiment (18 female, 7 male) from the same specific company. As well, 15 probands had completed university education (university), the remaining 10 probands had completed secondary education with a high school diploma (high school). Then, 8 probands worked in the company in a managerial position, the remaining 17 participants in the experiment at the level of subordinates. 13 participants worked with common types of text (C), 12 participants with knowledge-structured texts (K).

22 participants were right-handers, and 3 left-handers. 21 people from the participants had no brain injury in the past, 4 did. 22 people had no experience with the presented topic in the past, 3 indicated that they did. 8 of the participants have been working in the company for 5 to 10 years, 6 participants have been working in the company for less than 5 years, 6 participants have been working in the company for more than 20 years, 3 participants have been working in the company for 15 to 20 years, and 1 participant has been working for the company for 10 to 15 years. Below, there are frequency tables for selected variables mentioned above and where there could be any difference between participants and their outputs of the test.

Category	Frequency table: Sex (tests of participants)			
	Count	Cumulative Count	Percent	Cumulative Percent
Female	18	18	72.00	72.00
Male	7	25	28.00	100.00

Table 1: Frequency table: Sex (tests of participants)
(Source: authors)

Category	Frequency table: Education (tests of participants)			
	Count	Cumulative Count	Percent	Cumulative Percent
University	15	15	60.00	60.00
High-school	10	25	40.00	100.00

Table 2: Frequency table: Education (tests of participants)
(Source: authors)

Category	Frequency table: Manager/subordinates (tests of participants)			
	Count	Cumulative Count	Percent	Cumulative Percent
No	17	17	68.000	68.00
Yes	8	25	32.000	100.00

Table 3: Frequency table: Manager/subordinates (tests of participants)
(Source: authors)

Category	Frequency table: Years of employment experience (tests of participants)			
	Count	Cumulative Count	Percent	Cumulative Percent
5 to 10	9	9	36.00	36.00
to 5	6	15	24.00	60.00
20 and more	6	21	24.00	84.00
15 to 20	3	24	12.00	96.00
10 to 15	1	25	4.00	100.00

Table 4: Frequency table: Years of employment experience (tests of participants)
(Source: authors)

Category	Frequency table: Right-handers/Left-handers (tests of participants)			
	Count	Cumulative Count	Percent	Cumulative Percent
Right-handed	22	22	88.000	88.00
Left-handed	3	25	12.000	100.00

Table 5: Frequency table: Right-handers/Left-handers (tests of participants)
(Source: authors)

Category	Frequency table: Brain injury (tests of participants)			
	Count	Cumulative Count	Percent	Cumulative Percent
No	21	21	84.00	84.00
Yes	4	25	16.00	100.00

Table 6: Frequency table: Brain injury (tests of participants)
(Source: authors)

Category	Frequency table: Previous experience with the selected topic (tests of participants)			
	Count	Cumulative Count	Percent	Cumulative Percent
No	22	22	88.00	88.00
Yes	3	25	12.00	100.00

Table 7: Frequency table: Previous experience with the selected topic (tests of participants)
(Source: authors)

Category	Frequency table: Number of right answers from the test (tests of participants)			
	Count	Cumulative Count	Percent	Cumulative Percent
12	2	2	8.00	8.00
13	5	7	20.00	28.00
14	6	13	24.00	52.00
15	12	25	48.00	100.00

Table 8: Frequency table: Number of right answers from the test (tests of participants)
(Source: authors)

Category	Frequency table: Type of textual material (tests of participants)			
	Count	Cumulative Count	Percent	Cumulative Percent
C (common)	13	13	52.00	52.00
K (knowledge)	12	25	48.00	100.00

Table 9: Frequency table: Type of textual material (tests of participants)
(Source: authors)

3. RESULTS

We observed the influence of 2 factors (right answers from the test and necessary time for answering questions from the test (time in minutes)) on variable type of text. Below, see Table 10 with statistical evaluation of the correctness of the answers of participants in the experiment.

Variable	Descriptive Statistics (tests of participants)						
	Valid N	Mean	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis
Number of right answers	25	14.12000	12.00000	15.00000	1.013246	-0.779901	-0.598535

Table 10: Descriptive statistics of right answers of participants
(Source: authors)

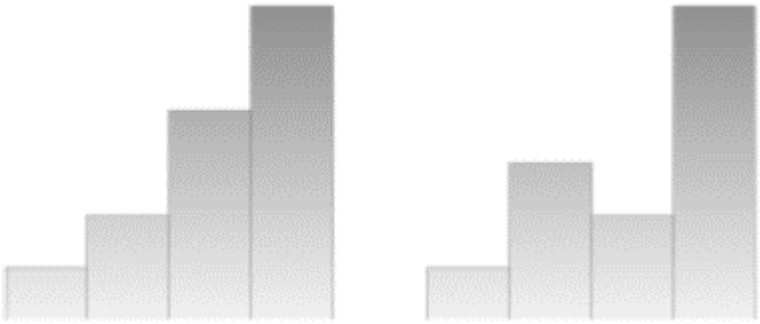

Figure 1: Categorized histogram of Number of right answers based on type of text (Source: authors)

Variable	Grouping: Type of text (tests of participants) Group 1: C Group 2: K						
	Mean C	Mean K	Valid N C	Valid N K	Std.Dev. C	Std.Dev. K	F-ratio Variances
Number of right answers	14.15385	14.08333	13	12	0.987096	1.083625	1.205144

Table 11: Number of right answers and their mean values for both groups - C and K (Source: authors)

The group of 12 participants working with a knowledge-structured text (K) achieved an average number of correct answers of 14.08333, a group of 13 participants working with a commonly structured text (C) achieved an average number of correct answers of 14.15385. The following is a statistical test of the difference in the number of correct answers when reading two types of differently structured texts. Below, see Table 12 Descriptive statistics for the variable Time (expressed in minutes) for all 25 participants together.

Variable Time	Descriptive Statistics				
	Valid N	Mean	Minimum	Maximum	Std.Dev.
Minutes in decimal	25	19.36580	8.980517	44.91075	7.794285

Table 12: Descriptive statistics for the Time variable of all participants (Source: authors)

Histogram for the Time variable for all 25 participants together. The Shapiro Wilk-W test on the normal distribution shows that the data do not come from a set with a normal distribution (P value is less than the selected significance level alpha = 0.05). It is necessary to divide the file into two subfiles - two groups working with differently structured texts (C) and (K).

Figure following on the next page

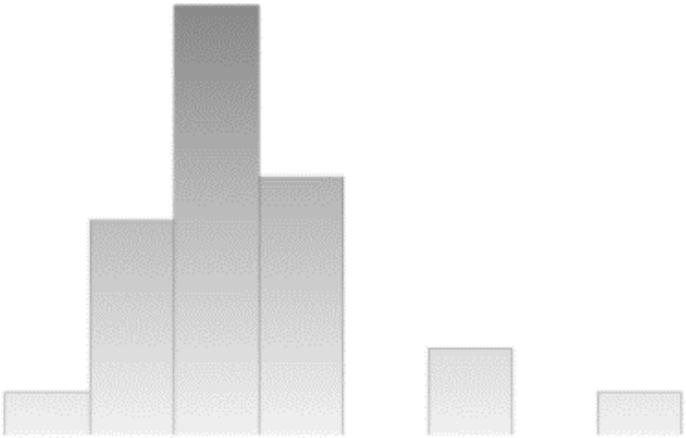

Figure 2: Categorized histogram of different type of text
(Source: authors)

Variable	Mean C	Mean K
Time varible (in minutes)	21.55143	16.99803

Table 13: Mean values of Time variable for both groups (C and K)
(Source: authors)

Mean values in minutes for groups C and K. It´s transparent that based on those mean values in minutes confirm that readers who worked with knowledge-structured text were in fact faster about 4.5534 minutes than readers who worked with common-structured text. It´s statistically not significant, on the other hand, after deeper analysis based on mean values and checking recordings and results of readers, it´s confirmed that users from group K were faster than from group C about 20% of spent time. As already mentioned, it´s not statistically significant but for organizations that want to improve learning processes of their employees and of course cut spent time on these activities it can be very important.

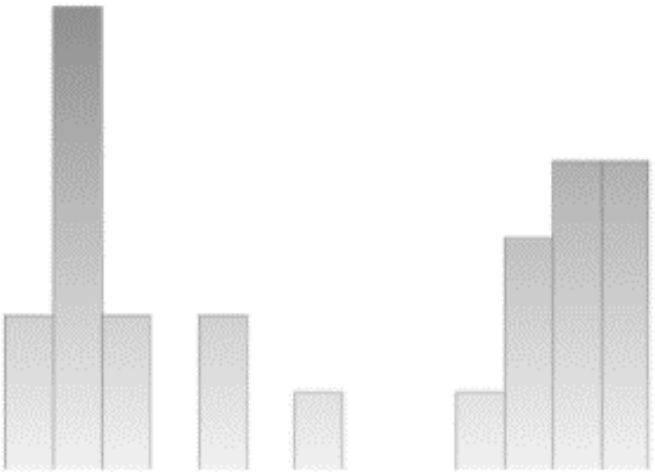

Figure 3: Categorized histogram of different type of text and its time required to measure tasks of participants
(Source: authors)

Nonparametric tests to measure the difference in time required to measure tasks were used, in this study was used Mann-Whitney U test.

Variable	Mann-Whitney U Test (w/ continuity correction) By variable: Type of text (time) Marked tests are significant at p <,05000									
	Rank Sum C	Rank Sum K	U	Z	p-value	Z adjusted	p-value	Valid N C	Valid N K	2*1sided exact p
Minutes in decimal	187.00	138.00	60.00	0.95	0.34	0.95	0.341	13	12	0.35

Table 14: Mann-Whitney U test results
(Source: authors)

None of the nonparametric tests above showed statistically significant differences in the time required to solve the task of participants. Only mean values of the time variable of readers were interesting after deeper analysis (faster results in the group K).

4. CONCLUSION

Results mentioned above are used as part of long term research of the whole research team. There were two main points analyzed. The first one is focused on visual attention of participants and that those who worked with the adapted version (knowledge-structured textual materials) were faster almost 20% of spent time in that whole experiment. As the second point, were analyzed differences between all participants and their results from eye-tracking metrics. Even though results from the second point were not confirmed as significantly different among those participants, it's important that we were able to collect them properly and at least compare those possible differences for the future purpose. The next step for the future research is to analyze those AOIs and to convert knowledge units such as in this study in graphical forms (graphics, pictures, tables, graphs, etc.).

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RELATIONSHIP BETWEEN EMPOWERMENT AND THE IMPACT ON THE QUALITY OF LIFE OF ICT USERS

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ABSTRACT

Nowadays in a pandemic situation caused by the COVID-19 virus information and communication technologies (ICT) has an growing and important impact in daily lives of people. The effective use of ICT can positively affect the quality of people's lives and empower them in terms of greater participation and involvement in all spheres of business and social life. Almost all of today's activities commerce, healthcare, political participation, entertainment, everyday culture and education are increasingly shifting to digital forms of delivery through the offer of various e-services by different governmental and non-governmental organizations and private businesses. Consequently, the growing use of ICT and e-services ultimately results in the growth and development of national economies in current crisis situations caused by emerging pandemic-related circumstances. Examination the relationship between the empowerment and the impact on the quality of live of ICT users using e-services is the focus of this paper. In order to examine the relationship between the empowerment component and the component of the impact on the quality of life of ICT users, a measuring instrument was developed and validated in terms of content, construct and convergent validity. Empirical part of the research was conducted on a representative sample of respondents in two counties of Northwest Croatia. Parametric and nonparametric correlation statistical analysis was performed on the collected data, a strong positive correlation was confirmed between the component of empowerment and the component of the impact on the quality of life of ICT users.

Keywords: *e-services, empowerment, quality of live, information and communication technologies (ICT)*

1. INTRODUCTION

Today, in times of great social and economic crisis caused by emerging pandemic COVID-19 virus circumstances, the governments need to be significantly involved in order to overcome such crisis in the shortest time period possible. One of the key roles of governments of all national economies should be constant work on defining and implementing such strategies whose primary goal is the implementation and use of ICT and the Internet in all spheres, social as well as economical (Kozma, 2005). Globalization of production, accelerated development and transpher of the new technologies, interaction regardless of geographical position or the time zone via ICT and the Internet, accelerated and continuing expansion of digital market and mobile communications instigate the creation of the new and more efficient models of structures concerning organization and other social structures. ICT and the Internet have become among the most important starters of growth and development. Generally speaking, one can presume that, due to transition from industrial to information society on macroeconomical level, the production and consumption of goods and services is significantly increasing changed which finally positively influences the growth and development of economy (Pirola, et.al. 2020, Mishra, Tewari and Toosi, 2020). On economic growth and development positively influence also trade in ICT goods and services, trade in digitally delivered services and that ICT supports many segments of service sectors. This is particularly evident at the present time when new forms of services are gaining importance, such as e-banking, e-commerce, e-learning, e-health, and others services (UNCTAD, 2019, p. 62-67, Selwyn and

Facer, 2007, EC, 2006). In the context of the impact on improving the quality of life, numerous socioeconomic ICT research in the field of ICT in education and life-long learning, e-work, e-commerce and e-government confirm that ICT significantly enhances employability, increases access to education and training, enhances labour market information and thus reduces unemployment, and improves people's ability to use public services (Velsberg, Westergren and Jonsson, 2020, Yeh, 2017, 1. Bankole, Shirazi and Brown, 2011). ICT also has the potential to improve access to the health system and necessary health information and thus improve preventive treatment and healthcare delivery. People can effectively use these health information and services to make better decisions about their treatment and care. ICT and the Internet provide better living conditions for millions of people with disabilities (Eccless, et.al., 2013). It can also be used to sustain social networks and building communities and for greater and easier access to relevant public information and public services from any location and at any time. ICT and the Internet allow better interaction with government for people with poor transportation abilities, health problems or physical mobility problems (Mort, et.al., 2013). They also open up potential opportunities for increased political participation as well as participation in decision-making processes (Pereira, Rocha, Poplin, 2012). Hereby an important role is given to education, which should empower people and creating the necessary e-competences (Hatlevik and Christophersen, 2013, Salinas and Sanchez, 2009) and thus reduce social exclusion and increase social capital (Roztocki and Weistroffer, 2016). The positive side of ICT and the Internet is that they offer children great educational opportunities, as well as being a source of entertainment and social networking (Hasebrink, 2008, p. 25, Benedetto, Correia and Luise, 2012, Bjekić, et.al., 2014). ICT and the Internet can be used also for different purposes such as access to learning materials, homework assignments, foreign language learning, communication, sharing of knowledge and experiences. It also allows a more flexible and individualised learning possibilities for people who were previously unable to participate in education. Hundreds of universities nowadays are proposing online programmes and massive online courses, in many cases making training and education freely accessible worldwide (Svendsen, and Mondahl, 2013, Yang, 2013, Akaslan and Law, 2012). Usage of ICT and the Internet for the labour force includes building skills that can open up new and better employment possibilities, higher income, and better working conditions. Other opportunities that arise from it are distance working (telework) and homeworking. Whereas, digitally skilled people have increased chances of self-employment and be successful in starting a new form of online business (Tas, 2011). All aforementioned opportunities that use ICT and the Internet offer refer to the distribution and circulation of knowledge resources, the potential of new information and communication services (Osatuyi, 2013), new job opportunities and better access to employment, and more traditionally as regards to ICT, overcoming barriers of distance or mobility (OECD, 2017, ITU, 2018). According to a survey conducted by the UN (2005), countries where the majority of the population has the potential of achieving real access to ICT and the Internet have higher opportunities for economic prosperity, social empowerment than countries where the majority of the population has no income, access and skills for ICT and Internet usage. With the emergence of ICT and Internet tools such as blogs, voice-over Internet protocols and wireless communication devices, people are able to communicate, distribute and access information more easily, faster and cheaper. The pervasiveness of ICT and the Internet has created a world of instant communication that has eliminated barriers to relationships such as distance. Technologies such as instant messaging, e-mail, blogs and social networks have enabled a new era of long-distance relationships and help in maintaining strong relationships for families and friends by enabling people stay connected (UN, 2005). Social benefits of ICT and Internet usage include increasing the feeling of belonging of socially excluded people. Observing from the aspect of social networking, ICT and the Internet help individuals not only to find new people with whom to build relationships but also provide the tools with which many

individuals maintain and strengthen their relationships through various online social networks. For those people who live in rural or places difficult to reach, ICT and Internet offers opportunities to engage in social interactions more easily and effectively (Bell, Reddy and Rainie, 2004). Summing up the rest of the studies which prove the connection between usage of ICT and the Internet and social inclusion/exclusion, one can conclude that, for young people, e-exclusion means lesser chances of getting top-quality jobs on the global market of labour force, while for adults and parents e-exclusion can be the cause of financial insecurities (unemployment) and limited access to information, advice and support, for the elderly, the disabled and the rest of other marginalized groups, e-exclusion means that they are also withheld from equal participation in the society together with the rest of the members of the community, independent life, work and that they are, in larger proportion, exposed to social isolation (Isaila, 2012; Wolske, et al., 2010; Kidd, et al., 2011). This all suggests that is of great importance for each national economy to implement means to achieve all relevant goals associated with increased use of ICT and the Internet because research conducted so far suggests that e-exclusion of a great number of citizens in a community results in many social problems. Such people are potentially excluded from the information society as well as from knowledge society, which is to a large degree already a form of social exclusion. The consequences of exclusion are costly for the individual and for the society as a whole and are evident in social isolation, increased unemployment, lower productivity and competitiveness, and exclusion from social and political spheres (Steyaert and Gould, 2009). Since ICT and the Internet together offer people work more effectively, affordably and creatively, it is necessary that citizens from all socio-economic groups and regardless of race, class, culture, gender, age, abilities and social locations should have the opportunity to use ICT, and particularly the Internet, to improve the quality of their lives and their communities. Although many governments promised that all citizens would have equal access to ICT and Internet and benefit from the opportunities in the new digital economy, this promise has not yet been realized because socially inclusive goals in current short and long term governments' policies and strategies related to ICT are not well defined.

2. ATTRIBUTES RELATED TO THE ROLE OF ICT IN IMPROVING QUALITY OF LIFE AND EMPOWERMENT

Digital technology is everywhere today the new modern society has incorporated technology in its everyday life in a way that almost all activities are supported by ICT and the Internet. In December 2003 in Geneva, in the first phase of the World Summit on the Information Society, a "common desire and commitment to build a people-centred, inclusive and development-oriented Information Society, where everyone can create, access, utilize and share information and knowledge, enabling individuals, communities and peoples to achieve their full potential in promoting their sustainable development and improving their quality of life" (WSIS, 2003) was expressed by all participants. The importance of the implementation of ICT and the Internet in the daily lives of people has been recognized by the governments of both developed and developing countries which, with various strategies and projects, are trying to create information societies in which their citizens can use ICT and the Internet to improve their quality of life, and enhance the economic and social growth and development (Madon, 2000; Kozma, 2005; Tas, 2011, Cisotto and Pupolin, 2018). Nurmela and his associates, through an extensive research, came to the conclusion that there are seven areas of implementation of ICT in the daily life of people, and these are: communication, personal production/self-expression, search for information, personal business from distance, automatic information and process system, mass media and media culture. The study assumes that the following: a) devices make everyday life easier because communication can intensify, diversify and expand beyond temporal and geographic obstacles, b) devices lower the participation threshold because

obtaining information is easier and opinions can be expressed through several channels (Nurmela et al., 2004). A similar conclusion was made by Shih and Venkatesh and Gareis and Lamp who have also divided the use of ICT in the daily life of people in similar categories: work related, family communication, family recreation, home management, home shopping, education/learning, information center (Shih and Venkatesh, 2004, Gareis and Lamp, 2007. p. 44). Amichai-Hamburger and Furnham (2007), in an attempt to prove a link between the use of ICT and its positive impact on the quality of life, concluded that, as technological devices enter into individual and collective spheres, ICT promotes higher social coherence, the recognition of being a part of a group and a strong attachment within a group/community enhances the members' mutual understanding and social approval, and helps to raise the sense of actualization. The impact of ICT and the Internet on the quality of life of individuals is often very difficult to isolate and quantify. Therefore, the impact of ICT and the Internet on the quality of life, in the context of this study is monitored through the use of e-services created by public authorities and private business organizations and refers to social and economic benefits such as saving time, material and financial resources, greater choice, acquiring new knowledge, however this is still difficult to measure, because there is no proven causal relationship. What can be defined as the potential impact on the actual users is: the impact on user behaviour, perception of security feature, privacy and confidence, and satisfaction that comes from using e-services. In the process of improving the quality of citizen life, economic policies play a significant role. Many of e-services that drive digital progress are developed by the private sector, but many e-services are inherently related to core public functions including education, health care, public safety, community development, and the environment. These e-services must be considered as critical areas for increased public investment because they form core components of the new intangible public infrastructure that drives improvements in quality of life. The dimension impact of ICT and the Internet on the quality of life is identified in several areas: economic area, educational area, the area of labour and employment, health area, the interaction of government, culture, and communication and entertainment. Attribute that refers to the economic sphere includes e-banking and e-commerce, educational area includes the attribute e-learning, e-health area health care, for the area of interaction between government and the citizens e-government, e-culture area of culture, while the area of communication entertainment includes e-communication and e-entertainment (Guerrieri and Padoan 2007; Cullen et al. 2007, Bentivegna and Guerrieri, 2010). The category empowerment, is not immediately recognizable in users' lives. The concept empowerment is widely used in a variety of areas such as social community psychology, political theory, social work, education, women studies, and sociology but also in science, business and policy fields, with widely varying definitions. In a general sense, "refers to the ability of people to gain understanding and control over personal, social, economic, and political forces in order to take action to improve their life situations" (Israel, et al., 1994, p. 152). Empowerment is connected to capabilities of acquiring and using information and knowledge for making top-quality decisions for the individual as well as for the society in the whole. Modern ICT and Internet technology empower people on different levels, in particular on an individual level and on a collective level in a way that more effectively take control of their own lives, take an active part in the different spheres of society, engage and participate in various social interactions, establish new social groups with shared political, cultural or economic interests. In the context of using ICT and the Internet empowerment relates to the innovative potential of ICT which is constantly developing. Due to this reason, the indicators for this category are rare and still in the process of defining. According to European Commission (2010) empowerment means increasing the capacity of citizens, businesses and other organizations to be proactive in society through the use of new technological tools. Such crucial role in those process have governments, because they should provide easy access to public information, improve transparency and allow effective

involvement of citizens in the policy-making process (EC, 2010). Each choice results from interaction and mixing political, economic and social factors and due to this, the analysis and monitoring component empowerment cannot be completely considered without networking, e-democracy, e-participation and contents creating (Guerrieri, Padoan, 2007, Meyer, Muller and Kubitscheke, 2006, Seale, 2009, Cullen et al., 2007, Verdegem, 2011).

3. RESEARCH HYPOTHESIS AND RESEARCH METHODOLOGY

With the aim to investigate the main research objective, relationship between empowerment and impact of ICT and the Internet on the quality of life and of ICT users, following research question have been formulated:

- »Is there any relationship between two components empowerment and impact of ICT and the Internet on the quality of life and of ICT users?«

Drawing on the aforementioned research objectives and research questions the research hypothesis is defined:

- H1 »There is a relationship between components empowerment and impact of ICT and the Internet on the quality of life and of ICT users.«

After an extensive review of literature, a new research measuring instrument (a questionnaire) has been developed for the purpose of this study, with 78 items related to e-learning (6 items), e-commerce, e-banking, e-employment (25 items), e-health (17 items), e-government (15 items), e-culture, e-entertainment and e-communication (15 items) which represent the component impact of ICT and the Internet on quality of life and 34 items related to e-democracy, e-participation (22 items), and social computing - content creation and networking (12 items), which represent the component empowerment. Items were coded on a 5-point semantic ordinal scale. Response labels for items measuring user attitudes ranged from "1-strongly disagree" to "5-strongly agree", and those for measuring service usage ranged from "1-not at all" to "5-very frequently". These 112 items were supplemented with socio-demographic data on participants' age, gender, place of residence, employment status and infrastructure indicators. The validation process of the measuring instrument has begun with content validation in which a selected panel of experts according to their experience in the previously mentioned areas from Croatia and Austria participated; two empirical indicators Content Validity Ratio (CVR) and average value of relative importance were calculated. In qualitative content validity analysis, experts' recommendations are adopted on observing grammar, using appropriate and correct words, applying correct and proper order of words in items and indicators. For the calculation of the empirical indicators CVR and averaged value of relative importance, experts are requested to score each item from 1 to 3 with a three-degree range of 1-Mandatory, 2-Desired, 3-Not important. Using these assumptions, the adjusted formula developed by Lawshe (1975) for the calculation of CVR was used. The numeric referent value (Minimum value = 0.56, α=0.05) of content validity ratio (CVR) is determined by Lawshe table (1975) for the twelve experts which participated in the study. For the purposes of quantitative validation, questionnaire was piloted on a convenient sample of participants contacted through social network (Facebook), electronic mail and the e-learning system of Faculty of organization and informatics by using »snowball« sampling method. Even though 331 respondents initiated the online survey, there were only 197 complete responses that were retained for the analysis. Assessment of construct validity of measuring instrument (questionnaire) was based on exploratory factor analysis. For the extraction of factor the factor analysis method here applied is ''maximum likelihood'' with orthogonal Varimax rotation method and Keiser normalization. Fit of the model was independently evaluated with the percentage of non redundant residuals with absolute values grater then 0.05 (more about factor analysis see Cureton, D'Agostino,

2009). Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity were used to assess sampling adequacy (for more see Hutcheson and Sofroniou, 1999). To approximate the reliability of a measuring instrument, its degree of internal consistency should be determined. This study employed Cronbach's Alpha reliability coefficient for measuring internal consistency of extracted factors. It is considered according to Mejovšek, 2008, for the instrument to have a satisfying reliability, if Cronbach's Alpha reliability coefficient is 0.70 or higher. The main part of research was conducted on a representative sample of adults in Varaždin County and Međimurje County according to a defined address sample taken from the Census of Population, Households and Dwellings in the Croatia and representative sample was developed with the help of the Croatian Bureau of Statistics. Fieldwork for the research was conducted via face-to-face interviews. The interviewing was conducted by eleven qualified interviewers. The number of adults (18+) who participated in the survey and have properly filled out the questionnaire was 427. Upon conducting the research and data collection, descriptive statistical analysis was conducted to examine summary descriptions of quantitative variables distributions. In order to test the significance of the relationship between the component empowerment and impact on quality of life correlation analysis was performed, used both, parametric method Pearson correlation and nonparametric method Spearman's rho (more about correlation analysis see Wilcox, 2010).

4. RESULTS AND DATA ANALYSIS

4.1. Validity of the measuring instrument

Following the qualitative and quantitative content validity analysis for component impact on quality of life, 10 items were reformulated and 41 items were excluded thus reducing the number of items from 78 to 37. Kaiser-Meyer-Olkin measure of sampling adequacy (KMO = 0.755) and Bartlett's test of sphericity ($\chi2 = 2237.524$, df = 300, $p < 0.0005$) both confirmed that assumptions for exploratory factor analysis were met. Number of non-redundant residuals >0.05 in absolute value was 10 (3,0%) confirming that the model represents data well. after conducted factor extraction, 8 factors that accounted for 73.34% of total variance. Number of manifest variables was further reduced from 37 to 25. Cronbach's alpha coefficients for subscales of the measurement instrument were: FACTOR 1 - e-learning (0.823), FACTOR 2 – e-health (usage) (0.822), FACTOR 3 – e-government (0.878), FACTOR 4 – e-health (attitude) (0.835), FACTOR 5 – e-culture (0.753), FACTOR 6 – e-entertainment (0.704), FACTOR 7 – e-employment (0.801), FACTOR 8 – e-banking, e-commerce, e-communication (0.625). All subscales had satisfactory reliability. For the component the empowerment 4 items were reformulated and 5 items were excluded thus reducing the number of items from 34 to 29. Kaiser-Meyer-Olkin measure of sampling adequacy (KMO = 0.819) and Bartlett's test of sphericity ($\chi2 = 1333.251$, df = 153, $p < 0.0005$) both confirmed that assumptions for exploratory factor analysis were met. Number of non-redundant residuals >0.05 in absolute value was 25 (16,0%) confirming that the model represents data well. After conducted factor extraction, 4 factors that accounted for 60.04% of total variance. Number of manifest variables was further reduced from 29 to 18. Cronbach's alpha coefficients for subscales of the measurement instrument were: FACTOR 1 - e-democracy (0.814), FACTOR 2 – e-participation (usage) (0.847), FACTOR 3 – social computing - networking (0.747), FACTOR 4 - social computing - content creation (0.726). As Cronbach α coefficients for all factors in all categories are higher than 0.700 except for eighth extracted factor category of ICT and the quality of life, the alpha value of which is 0.625, what is considered as acceptable in the area of social sciences, one can rely on the measurement instrument and its measurement results.

4.2. Results of testing the relationship between the component empowerment and component impact on quality of life of ICT users

In order to test the significance of the relationship between the component empowerment and component impact on quality of life, and to test a defined hypothesis, correlation analysis was performed, used both, parametric method Pearson correlation and nonparametric method Spearman's rho. Both methods have given similar results. From the results of both performed analysis can be concluded that there was a positive correlation between latent variable impact on quality of life and latent variables empowerment (Pearson correlation r = 0.814, n = 427, p = 0.000; Spearman's rho r = 0.822, n = 427, p = 0.000), which means that the defined hypothesis is confirmed.

Correlations		
Pearson correlation	Impact on quality of life	Empowerment
Impact on quality of life	1	0,814**
Sig. (2-tailed)		0,000
N	427	427
Empowerment	0,814**	1
Sig. (2-tailed)	0,000	
N	427	427
** Correlation is significant at the 0.01 level (2-tailed).		

Table 1: The results of correlation analysis using Pearson correlation method between component empowerment and component impact on quality of life (Source: made by the author)

Correlations		
Spearman's rho correlation	Impact on quality of life	Empowerment
Impact on quality of life	1	0,822**
Sig. (2-tailed)		0,000
N	427	427
Empowerment	0,822**	1
Sig. (2-tailed)	0,000	
N	427	427
** Correlation is significant at the 0.01 level (2-tailed).		

Table 2: The results of correlation analysis using Spearman's rho correlation method between component empowerment and component impact on quality of life (Source: made by the author)

Related to a formulated research question, by using verification of significant correlation of relationship between the component *empowerment* and the component *impact of ICT and the Internet on the quality of life*, one can interpret that, when and if individuals / groups / communities use ICT and the Internet with purpose of participating, networking and taking part in the processes of decision making, they will probably also use the e-services with purpose of improving one's quality of life.

5. CONSLUSION AND DISCUSSION

Especially nowadays government and non-government institutions must take significant steps in order to provide citizens with possibilities of exploiting numerous advantages which are enabled by the use of ICT and the Internet. Nevertheless, numerous research has shown that each individual cannot equally benefit from all the advantages offered by ICT and the Internet, due to economical, geographical and other limiting factors. Thus, monitoring of movements of expansion and use, as well as identifying the target groups which are deprived of all rights,

according to which the aims of government strategies should be defined and implemented, has become very significant for the bearers of economical politics in the country and for those charged with creating strategies in the area of ICT and the Internet. Research presented in this article can be of great help to the creators of the strategy concerning digital inclusion, because it displays results in relation between two very important components, empowerment and the impact of ICT on people's quality of life. These two components are crucial in terms of digital inclusion and critical factors which have a huge influence on active participation of individuals/groups/communities in all segments of society. Recommendations that could be derived from presented research are expressed first in creating, and then in implementing the strategy of digital inclusion according to all guidelines which were, through the series of strategies, proposed by the European Commission. One of the main aims of the strategy should be establishing, as in urban, so in rural and hardly accessible areas, easily accessible and free of charge access to ICT and the Internet for all citizens by the model of many countries members of the European Union. To increase the level of digital literacy of citizens it is advisable to organize and conduct free workshops for all interested citizens. To simplify administrative procedures concerning public services it is advisable that almost all public services that are given by public authorities are created as simple and easily applicable electronic services adjusted to special needs persons in one central portal and in public places meant for that purpose, where users which, for any reason, do not have access to ICT and the Internet, or do not have the knowledge of using them, can, with expert assistance, perform all the activities such as, for example, obtaining personal documents, registering and paying taxes, registering a company or a craft, register a vehicle etc., for free. Besides that, a support and motivation of citizens is needed for using electronic services via promotion through traditional media such as newspapers, public television, posters. To increase the level of access and the use of ICT and the Internet at home, by the example of other countries of the European Union, there is a need for active participation in the expenses on a national and local level, providing for those groups that are the most threatened, such as: retired people, people with disability, households with low assets, unemployed, students, primary and secondary school students. To promote all the advantages offered by ICT and the Internet, as well as the growing digital market in the sense of employment, greater profit and more favourable and simpler availability and buying products on global world market. To support and motivate citizens for greater social interaction by networking through the most different social, business and research networks. To enable citizens and encourage them for active participation in as many processes of decision making as possible, as on national levels so on local levels of the government, with the assistance of ICT and the Internet. To enable citizens the access to all information concerning the legislation, regulations in digital form to increase transparency of activities, as of national, so of local levels of government. To participate in encouragement of individuals/groups/communities in creating new knowledge, acquiring new knowledge and skills, and sharing knowledge through free accesses of formal and informal learning through available e-learning courses, webinars and professionally made digital material for self-education. To promote all the advantages and encourage the use of e-health system in the purpose of primarily prevention of diseases, that is easier and simpler availability of the health service for all diseased. To enable providing as well as participating in the expenses of provision of so called assistive technologies for the diseased, that is people with invalidity in the purpose of improving the quality of their lives. If governments and non-governmental institutions actively support and encouraging all the above mentioned and acting in this direction by creating and implementing strategies, people will be further empowered by using ICT and the Internet, which will consequently, according to the results of the presented research, have a positive impact on their quality of life.[1]

[1] More about this research can be found at https://urn.nsk.hr/urn:nbn:hr:211:404534

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THE EVOLUTION OF SUSTAINABLE CITY ASSESSMENT

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ABSTRACT
Urbanization is integrally linked to the three pillars of sustainable development: economic, social and environmental protection. The transition of sustainable development from the abstract concept to the measurable state of dynamic human and ecological systems requires the development of appropriate evaluation method. Indicators are a useful tool for capturing trends and supporting cities in their development plans. The study of the sustainable development of cities and the construction of evaluation systems are carried out (independently or in cooperation) by scientists and academic centers, municipal and environmental organizations, local authorities and international organizations. So far, there is no consensus on the pros and cons of any particular system. The goal is to review the existing multidimensional sets of indicators which are used to assess the sustainable development of the city, from local initiatives to international studies.
Keywords: *indicators, sustainable city, sustainable development, urban development*

1. INTRODUCTION

Cities are centers of the economic and social development of countries and regions, but they also contribute to the devastation of the natural environment. The concept of a sustainable city refers directly to the Brundtland report „Our Common Future" (WCED, 1987) and translates the definition of sustainable development into the urban level. The importance of cities in implementing the concept of sustainable development is emphasized by the fact that one of the 17 Sustainable Development Goals defined in the 2030 Agenda for Sustainable Development is to make cities and human settlements safe, resilient, sustainable and inclusive. The theoretical framework and indicative targets set by international agreements and declarations encounter numerous practical problems during their implementation. The operationalisation of the concept of sustainable development at the city level is difficult because the criteria of a sustainable city remain diverse. Currently there is no single sustainability measurement system that is widely accepted and applied in urban areas. Meanwhile, more and more cities are prioritizing the assessment of sustainability and many of them are making efforts to develop detailed measurement and evaluation programs including environmental, social and economic aspects. There is a discussion in the literature about the possibility of using existing sustainable development indicators applied in national or regional studies to assess urban development. However, some of these indicators include variables that are not applicable in the context of city development assessment. Examples include indicators that focus on natural phenomena such as droughts, sea water temperatures, tsunamis, endangered species, biodiversity. The Environmental Vulnerability Index cannot be applied to a city because it is designed to reflect the extent to which a country's environment is vulnerable to damage and degradation. The Wellbeing Index is dedicated to assessing a country's sustainable development and contains several environmental indicators not relevant to urban areas. Also, the Living Planet Index cannot be applied to cities because it is an indicator of biodiversity, measured by the populations of 1686 species of vertebrates found in all regions of the world. Footprint indicators can be estimated for countries, but also for cities and regions, and even for individuals (van den Bergh, Verbruggen, 1999). However, the use of Ecological Footprint in the context of cities and urban areas is discussed in the literature (Rees, 1992; Rees, Wackernagel, 1996). The Ecological Footprint cannot sufficiently capture the external impacts of cities on other areas (Fiala, 2008).

The functioning of a city depends on the import of goods and services, the production of which requires an area located elsewhere on Earth, much larger than the inner city itself. As a result, the city has a huge "environmental deficit" compared to the rest of the country and the world. However, this does not necessarily mean that the societies living in these areas are far from achieving sustainable development goals (van den Bergh, Verbruggen, 1999). The Water Footprint and Carbon Footprint are also not sufficient indicators to assess sustainable urban development as they do not cover all three dimensions of sustainable development. However, they can be successfully used as complementary indicators in the analysis as they assess the city's impact on other areas beyond its borders in terms of water consumption and greenhouse gas emissions. The Index of Sustainable Economic Welfare and the Genuine Progress Indicator are successfully used in urban studies. Costanza et al. (2004) calculated the GPI at city, county and state level in Vermont, USA. They showed that it is possible to apply the GPI on a smaller spatial scale and for national benchmarking. Wen et al. (2007) used GPI to analyse four cities in China. Pulselli et al. (2006) calculated the ISEW indicator for the province of Siena in Italy and showed that it is also possible to apply it at the local level. Thus, the ISEW and GPI can be used to analyse a city's sustainability as well as to compare cities with each other, but have some limitations, mainly in terms of assessing externalities. Another approach to assessing sustainable urban development is to create a measure dedicated to cities and taking into account their specific development problems and challenges. Numerous attempts are being made worldwide to develop multidimensional systems of urban development indicators covering economic, social and environmental issues. The study of sustainable urban development and the construction of evaluation systems are carried out (independently or in cooperation) by scientists and academic centers, urban and environmental organizations, local authorities and international organizations. Multidimensional sets of indicators are a very good tool to measure city performance, capture trends and support cities in their development plans. So far there is no consensus on the pros and cons of a particular system. On the other hand, cities vary considerably in terms of available resources, population size and urban metabolic processes, so a variety of tools is useful.

2. DEVELOPMENT OF URBAN INDICATORS

Multidimensional sets of indicators are often used in research in local or regional contexts practically all over the world. For example, studies in Italy were conducted by Ferrarini et al. (2001), who evaluated 45 municipalities in the province of Reggio using a set of 25 indicators. Lee (2007) adopted 51 indicators to analyze the sustainable development of the city of Taipei in Taiwan, dividing them into four categories: environmental, economic, social and institutional. In the study, he analyzed the trends in indicators from each category over a period of 11 years, i.e., 1994-2004. Mascarenhas et al. (2009) developed a conceptual framework for selecting sustainable development indicators in a regional context, using a participatory approach that allows for taking into account the interests of local stakeholders. These indicators were used to analyse the Algarve region in Portugal. Graymore et al. (2009) used indicators selected on the basis of a multi-criteria analysis to assess the southwestern part of Victoria State in Australia, taking into account economic, environmental, social and institutional dimensions. Kondyli (2010) used a set of 20 indicators covering economic, social and environmental aspects to study the islands of the northern Aegean region in Greece. The US Environmental Protection Agency launched the Green Communities Program Participating Community in 1999 encouraging cities to monitor their development using indicators (EPA, 1999). Cities joining the program received a Green Communities Assistance Kit with instructions and tools to help them plan their development. In the first of five steps, cities should assess the current situation in the economic, social and environmental areas, identifying their strengths and weaknesses.

The second step is to analyze the trends of the selected indicators in order to determine the current direction of change. In the next steps, development goals are set, ways to achieve them and the plan is started. In China, several different sets of indicators are used, ranging from a dozen to over a hundred indicators. For example, Zhang (2002) proposed the Urban Sustainability Index (USI) for Chinese cities based on 22 indicators. Li and Yu (2011) developed a synthetic Chinese Eco-city Indicator with 36 quantitative and 9 qualitative indicators. The Chinese Academy of Sciences has developed a set of 146 indicators divided into categories including environment, economy, social issues and information systems (Zhou, He, Williams, 2012). The Green City Index is a synthetic measure developed by Economist Intelligence Unit in cooperation with Siemens. The GCI, which includes 30 quantitative and qualitative indicators from areas such as transport, real estate, emissions, energy, wastewater and waste, is used to benchmark cities. Ranking lists of cities from Africa, North America, South America, Asia and Europe are compiled on the basis of individual criteria for each continent due to the variety of problems faced by cities around the world (https://press.siemens.com/). As a result of many initiatives taken around the world to develop multidimensional sets of city indicators, there are currently many different systems and hundreds of agencies collecting data. However, these indicators are usually not standardised, consistent or comparable (over time or between cities). Therefore, international organizations have been trying to develop more standardised measures that could be used in a given region or even worldwide. The first step was to create common international databases fed by the cities themselves and voluntarily. In Europe, one of the first initiatives of this kind is Eurostat's database called Urban Audit, which is currently the largest urban data collection program in the European Union. The aim of the program is to assess the quality of life at the local level, both in relation to the conditions and standard of living in the city and the subjective satisfaction of its inhabitants (Boris, Rogala, 2008). The database provides objective and comparable statistical data on European cities in the field of demography, household structure, income, education, health care, labour market, economic activity, social participation, environmental protection, housing, culture and tourism. The Urban Audit is not a system of indicators, but an extensive database consisting of more than 300 variables covering various aspects of life. The full range of data is collected every 3 years and starting from 2010 a narrower group, i.e. 38 variables, is collected annually. The project collects data for different spatial levels (ec.europa.eu/Eurostat): cities within administrative borders (Core City - C), wider urban zones (Larger Urban Zone - LUZ) which are the areas influenced by urban agglomerations, and sub-city districts (SCD). The City Audit program includes a large set of variables, which obviously causes numerous problems with data acquisition and quality. Moreover, there is a long delay in the delivery of data by participating countries. Almost all countries have data gaps, although to different extent, due to different social and historical background. Some countries provide reliable data, while some variables are estimated, which limits their usefulness for benchmarking. However, the pilot edition of the programme confirmed that collecting and comparing statistical data for European cities is not only possible but also useful. Thanks to the launch of the Urban Audit, more and more countries and cities in the European Union have started collecting information and creating their own databases. Another example of an international urban data collection initiative is the Reference Framework for Sustainable Cities (RFSC). It is a set of 16 key indicators and more than 300 additional indicators covering economic, social, environmental and governance areas. The tool has been developed in collaboration with the Council of European Municipalities and Regions (CEMR), Platform31 and the International Council for Local Environmental Initiatives (ICLEI). This kit can be successfully used for analysis at both district and metropolitan level. The tool has been tested in more than 80 cities of different sizes in almost all EU Member States. Due to the large number of additional indicators, this set is very comprehensive and gives cities a lot of freedom to

construct the right set according to their needs and objectives (http://urbact.eu/reference-framework-sustainable-cities). RFSC is an on-line toolkit which provides many practical materials for cities. Moreover, the portal offers access to various forms of exchange of experience and support between cities, including training sessions. The tool allows to develop an urban strategy or project that takes into account all areas of sustainable city development, check current strategies or projects in a given city for positive and negative interactions of different policy sectors, and monitor the effects of the implemented strategy. The RFSC is designed to help European cities to achieve the sustainability goals of the Leipzig Charter and to stimulate development in line with the Agenda 2030 and the Sustainable Development Goals. The Urban Audit and the RFSC are initiatives whose main objective is to collect urban data and motivate cities to systematically collect and analyse data, while leaving cities free to choose the right indicators for themselves. However, the creation of a single common database, as well as the development of a conceptual framework, was a step towards the introduction of a unified sustainability assessment system for cities at international level.

3. GLOBAL INITIATIVES

3.1. Multidimensional framework for aggregate indicators

International organizations have recognized the need for a single comprehensive system to measure and monitor urban service delivery and quality of life in cities. By collecting and analysing comparable urban data, city authorities and their citizens could observe the development of their city over time, and at the same time it would become possible to make comparisons between cities in the world. The existing lack of standardization limited the ability of cities to share best practices and learn from each other. Especially large metropolises may prefer to join an international program, which enables them to make comparisons and facilitates the sharing of knowledge and experience with other large cities from all over the world that face similar problems. The United Nations Human Settlement Program (UN-Habitat) developed in 1996 the City Development Index (CDI) to assess the sustainability of cities while allowing comparisons between cities around the world. CDI was a single measure of the level of city development, which was calculated as a weighted average of the five subindices, i.e., city product, infrastructure, waste, health and education (UN-Habitat, 2001). To calculate CDI, therefore, it was necessary to first calculate the values of five sub-indexes, each of which was a combination of several standardized indicators. For meaningful ranking of cities, it is necessary to obtain complete, reliable and precise data, what in practice turns out to be a difficult challenge. In case of missing data or doubts about their reliability when calculating the CDI, they were either replaced by data from another national city of similar size or by country-wide figures. In some cases indicators were completely omitted or only approximate estimates were accepted. In 2012, UN-Habitat developed a new version of indicator dedicated to measure sustainable urban development, the City Prosperity Index (CPI). This tool is intended to provide a better way of measuring and evaluating the direction of development of a given city. It allows cities to identify, evaluate, monitor and report on their progress towards the implementation of the 2030 Agenda for Sustainable Development. The City Prosperity Index is a multidimensional framework that integrates six dimensions: Productivity, Infrastructure development, Equity and social inclusion, Environmental sustainability, and Governance and legislation. Each of the dimensions is comprised of several indicators measured differently. The CPI is structured in such a way that it leaves cities the opportunity to adapt to the local context. It shows the strong relationship between balanced development of all the dimensions of prosperity and the overall performance of cities (UN-Habitat, 2016).

The CPI can be calculated on several levels depending on the purpose and availability of data:

- The Basic City Prosperity Index - this level of the index is useful for cities that want to compare their level of development and well-being with other cities in the regional and global arena; it uses a set of commonly available indicators;
- The Extended City Prosperity Index - a more advanced version of the index whose main function is to integrate more indicators that are not available in all cities; the availability of local data determines the number of indicators used, so comparability is not the main objective here;
- The Contextual City Prosperity Index - the most elaborate version of the CPI, which additionally takes into account indicators relating to policies and actions recently implemented or currently being implemented in a given city.

Within this flexible approach the CPI has a dual function. First, it serves as a platform for comparison where cities can assess their current situation and compare themselves with other cities around the world. Secondly, it acts as a strategic tool where data and information can be adapted to local needs and used to measure progress and identify gaps in different dimensions of well-being.

3.2. Standardization of indicators

In 2008, the World Bank, along with UN-Habitat, the World Economic Forum, OECD and ICLEI, launched the Global City Indicators Program (GCIP), which developed a standardized set of indicators to assess and compare the development of cities around the world. The Global City Indicators Facility at the University of Toronto, established in 2008, was the leading unit of the GCIP (Bhada, Hoornweg, 2009). The set of Global City Indicators (GCI) was selected based on the conclusions of the pilot phase conducted in nine cities in different regions of the world and information received from other member cities. City representatives were actively involved in the preparation, critical review, selection and development of the indicators as well as the methodology for monitoring and reporting. Cities interested in participating in the program, after registering on the website, received free access to a special system for entering data, tracking progress over time and sharing knowledge. The GCI indicators were divided into two categories covering a total of 18 themes. Each theme consists of core and supporting indicators. The first category covered city services: education, finance, governance, health, solid waste, energy, water, wastewater, safety, fire and emergency response, transportation and recreation. The second category grouped factors affecting the overall quality of life, including civic engagement, economy, social equity, technology and innovation, environment and shelter (Bhada, Hoornweg, 2009). Each member city was responsible for collecting and annually entering core indicators into the database. However, reporting supporting indicators, which might initially be more difficult to collect in some cities, was optional. The database contained a total of 115 indicators collected from 255 cities from 82 countries (www.globalcitiesinstitute.org). This set of indicators reflected the cities' need for information and, on the other hand, took into account data availability. The indicators were selected so that they were easy and inexpensive to collect, mainly based on data already held by the cities. The GCI covered many aspects of urban life, with particular emphasis on the economic and social dimensions of sustainable development. However, it did not take into account important environmental issues such as pollution, air quality or renewable energy (Fijałkowska, Aldea, 2017). The set of Global City Indicators served as a framework of the first international standard for measuring sustainable urban development. The Global Cities Institute Facility in cooperation with the World Council on City Data (WCCD) and the International Organization of Standardization (ISO), developed the concept of creating the best possible and standardized indicator system. Standardized indicators mean that all cities use the same measures and

methodology, making it easier to collaborate and learn from one another. International standard ISO 37120:2014 - Sustainable development of communities - Indicators for city services and quality of life[1] was introduced on May 15, 2014 during the World Summit of Cities. It is the first and only source of standardized urban data that allows to measure progress, make comparisons between cities and share knowledge. In year 2017 two more international standards for smart and resilient cities were developed, i.e. ISO 37122: Sustainable cities and communities - Indicators for smart cities and ISO 37123: Sustainable cities and communities - Indicators for resilient cities. These standards contain sets of indicators complementary to ISO 37120. The ISO 37120 standard includes 100 indicators for city services and quality of life divided into 17 thematic categories. The indicators have been selected to make reporting as simple and inexpensive as possible, taking into account differences in the resources and capabilities of cities and municipalities. The overall set of indicators was divided into 46 core indicators, which are mandatory to report, and 54 supporting indicators, which are only recommended for use. For each of the indicators, requirements for it, input data sources for the correct calculation of values and interpretation of the results were defined (ISO, 2018). Cities applying for certification under ISO 37120 can obtain it on one of five levels:

- Aspirational - city reports between 30 and 45 core indicators;
- Bronze - city reports from 46 to 59 indicators, including 46 core indicators and 0-13 supporting indicators;
- Silver - city reports from 60 to 75 indicators, including 46 core indicators and 14-29 supporting indicators;
- Gold- city reports from 76 to 90 indicators, including 46 core indicators and 30-44 supporting indicators;
- Platinum - city reports from 91 to 100 indicators, including 46 core indicators and 45-54 supporting indicators.

Any interested city can apply for the ISO 37120 certificate, regardless of size. The certificate is awarded by the WCCD for a year and then subject to annual verification. To obtain a certficate it is necessary to first define the sources of data, the way of their verification and calculate the indicators in accordance with the methodology given in the standard. After signing the certification agreement and receiving access to a dedicated website, on which data about the city should be entered, verification by WCCD auditors takes place and a certificate is issued at the appropriate level. Obtaining the ISO certificate means that a city collects data in a given theme. Of course, this serves the purpose of transparency, improving the quality of management, as well as comparing the achievements of the cities. It absolutely does not mean that a level of development of cities with the same level of certification is similar. The certification process does not include the assessment of indicator values or trends, but only the reliability and completeness of data acquisition by the city.

4. CONCLUSION

The XXI century is the century of urbanization. Globalization, creates a completely new space for planning, trade, or migration. In this new reality, the key role is played by cities, which should begin to respond to many of the global challenges of sustainable development, such as pollution, climate change and ensuring inclusive growth. Indicators can inform city officials on how to manage city growth and assess trends to determine future implementation of policies. Sustainability in cities is about successfully meeting today's needs without compromising tomorrow and working together for a competitive economy, in a socially inclusive society and

[1] The starndard has been revised by ISO 37120:2018 - Sustainable development of communities - Indicators for city services and quality of life.

a healthy, vibrant environment. In order to measure the level and also track how cities progress on the path to becoming sustainable, a well defined set of indicators and indices is the best solution. The correct assessment of processes related to sustainable urban development requires access to comprehensive and reliable information, including statistical data and indicators. The main conclusion of the study is the need to establish a well-defined set of indicators that will allow ongoing monitoring and evaluation of the effects of strategies and development programs implemented in cities. Standardized indicators are essential in order to measure the performance of cities and support cities in becoming global partners.

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SOCIALLY RESPONSIBLE MARKETING IN THE TRANSPORT OF PASSENGERS AND GOODS

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ABSTRACT

The subject of the paper is "Socially responsible marketing in the transport of passengers and goods." The theoretical basis of socially responsible business and marketing in the transport of passengers and goods is described. Trends, opportunities, and challenges of socially responsible marketing in the transport industry are explained. Using the analysis of examples in practice, the course of implementation and the results of research on a sample of 220 respondents on the attitudes of potential users or users of transport towards the application of socially responsible marketing in transport are described, as well as the research on the attitudes of carriers towards the same issue. By processing the collected data and analysis, it was determined that HŽ Passenger transport and FlixBus transport companies respect the principles of corporate social responsibility in conducting their business policy. They intensively carry out socially responsible marketing activities supported by digital technology. They emphasize their comparative advantages and focus on environmental protection and passengers' safety and satisfaction in marketing activities. On the other hand, users of transportation services do not think that these companies do enough for environmental protection but generally agree that they successfully use digital marketing to improve their business and create a positive image in the environment. Reasoned conclusions are drawn based on the systematized results of the conducted research.

Keywords: *socially responsible marketing, corporate social responsibility, sustainable development, transport of passengers and goods*

1. INTRODUCTION

For the sustainable development of business entities, the premise of corporate social responsibility and socially responsible marketing is necessary. In market business conditions, the company's constant aspiration is to achieve business profitability following the community's generally accepted goals and interests. In the transport of passengers and goods, there are many possibilities and specifics of the application of corporate social responsibility and socially responsible marketing to achieve sustainable mobility, which is necessary to meet the transport demand. The aim is to explain the theoretical basis of the role and importance of socially responsible marketing, to examine the attitudes of transport companies and transport users, to analyze the current situation in the application of responsible marketing in this industry, and to

identify trends, opportunities and challenges of socially responsible marketing in passenger and freight transport. To achieve these goals, collecting and researching relevant sources (professional literature and scientific papers), describing the factors of socially responsible marketing in the transport of passengers and goods, examining the attitudes of carriers and transport users, and analyzing collected data were used. The empirical research includes a survey of actual or potential transport users' attitudes on a sample of 220 respondents and a survey of transport companies' attitudes in passenger transport by rail and road through available information from their websites.

2. CORPORATE SOCIAL RESPONSIBILITY AND MARKETING

Social responsibility is defined as an intelligent and objective concern for society's well-being that limits individuals' and corporations' behavior from extremely destructive activities, no matter how quickly they can become profitable, and leads to positive contributions to human well-being defined in different ways (Glavočević, Radman, Peša, 2013:29). The concept of corporate social responsibility offers several practical solutions and business principles by which the company can further build its reputation. Thanks to the better reputation gained based on the company's recognizability, which was, on the other hand, achieved by applying the concept of corporate social responsibility, the company can receive support in its actions from the state authorities and civil society bodies (Rajić, 2019:2). Based on research by one of the leading non-profit organizations, Business for Social Responsibility, cited in Kotler and Lee (2009), it can be concluded that companies operating according to the concept of social responsibility have achieved some different benefits, such as, among others:

- increase in sales and market share
- strengthening the brand position
- strengthening corporate image and influence
- strengthening opportunities to attract, motivate and retain employees
- reduction of operating costs
- increase attractiveness for investors and financial analysts.

Doing business according to corporate social responsibility principles brings numerous advantages both for the company/organization and society. By applying corporate social responsibility practices, companies increase their competitiveness (increased market share, free advertising, higher productivity resulting from increased employee satisfaction, easier availability of capital, consumer loyalty) while doing a good deed for the community (Glavočevi, Radman Peša, 2013:31). The definition of corporate social responsibility and the definition of marketing, which shows its practice through the concept of social marketing, actually complement each other and are in no way contradictory. All definitions emphasize cooperation as the main precondition for achieving benefits for all participants in the exchange and other individuals and groups that affect or may affect it. However, to establish cooperation and relationship, it is necessary to communicate and thus achieve exchange and value creation (Hubak, 2010:7). In strategic marketing, corporate social responsibility is reflected in the perception of market opportunities that a company can use to create a partnership and its integration into the organization and brand's cultural network, which, if properly approached, results in a competitive advantage differentiation. This does not mean that corporate social responsibility is a marketing tool, but suggests a long-term consideration and integration of corporate social responsibility into marketing (Hubak, 2010:25). The concept of Corporate Social Responsibility (CSR) emerged in the United States, and most studies on the subject have been conducted there. Numerous academic publications analyze the concept of CSR from different perspectives, such as core business approaches or public contributions from companies (Zlatar-Vulić, 2020: 2).

The concept of corporate social responsibility and its scope differs between countries, regions, and even between stakeholders. It includes environmental issues and various social, ethical, administrative, health, and other business challenges (Actor, 2018: 4). If we look at corporate social responsibility from a social perspective, such as investing in education, working conditions, and adopting good relations with employees, it can contribute to productivity. Further, in countries where there are no regulations, such practices may lead to adopting a legal framework for socially responsible practices (Kovačić and Đukec, 2016: 4). In October 2011, the European Commission published a new CSR strategy for the period 2011-2014 with a new definition: Corporate social responsibility is the responsibility of companies to impact society. It is a concept by which companies voluntarily integrate social and environmental issues into their business activities and interact with other stakeholders. There are plans to create a European award for CSR, monitor trust in business, develop a collection of good practices, create legislation for reporting on social and environmental indicators, and further integrate CSR in education, training, and research (Salarić and Jergović, 2012: 2,3). CSR facilitates attracting and retaining desired employees through a system of lifelong learning and employee training; the better flow of information within the company; the better balance between work, family and leisure, equal pay and conditions for women's advancement; safety at work, non-discriminatory practices that contribute to the employment of members of minorities, older workers, women, the long-term unemployed and people with special needs, etc. (Salarić and Jergović, 2012:3). According to Kotler and Lee, there are six ways for an organization to integrate its socially responsible activities into marketing activities and business:

- Corporate promotion of social goals - by providing funds, in-kind contributions, or any other resources needed to raise awareness, increase interest, or understand a social problem, the organization seeks to help collect contributions and encourage volunteering, i.e., socially useful work.
- Socially related marketing - of all other ways that integrate social responsibility into marketing activities, socially related marketing, i.e., cause-related marketing, is a direct link between a particular product or product line and a particular social goal
- Corporate social marketing - To improve public health, safety, environment, and social well-being, organizations undertake activities related to social marketing, which, in addition to raising awareness of a particular problem, also has a voluntary change or modification of the behavior of consumers and members of society.

Corporate philanthropy - the most traditional social initiative within the organization, is usually a non-refundable financial contribution by which the organization wants to support a humanitarian organization's work and its activities. What characterizes the newer corporate philanthropy is the strategic approach in choosing the social problems towards which resources will be directed, the orientation towards monitoring and measuring results, and the long-term partnerships that arise through cooperation. In today's modern age in which a new paradigm is in force, money is not the only means of assistance, but with the intensive involvement of employees, it is manifested through the provision of surplus products, educational programs, scholarships, equipment for use, and the like.

- Socially useful work - Socially useful work is an initiative within an organization where employees and partners are encouraged to dedicate their time and abilities to volunteer work to local humanitarian organizations. Through internal communication and marketing, employees are encouraged to get involved in volunteer projects, and through them, as a kind of ambassador, a bridge is created between local humanitarian associations.
- Socially responsible business practice - socially responsible business practices include all the above social responsibility activities integrated into marketing.

> The business practice goes beyond each of them and marketing as a function in the company. This concept implies that the organization and its management independently adopt practices that benefit the community and protect the environment. Thus, it is not a matter of complying with the law or activities expected, such as the payment of wages, but a higher level of social responsibility that includes all stakeholders who have increasing power and influence on the likelihood of long-term survival of the organization (Hubak, 2010: 8).

The marketing area in which responsible business practice is of great importance is internal marketing, which refers to " marketing efforts of the company aimed at employees to select, motivate and retain the best people who will do their jobs in the best possible way. When it comes to social responsibility within internal marketing, then it is about ethical behavior in communication through which the identification of employees with the organization and its customers is developed due to greater satisfaction, which is manifested in the reduced number of turnovers, resulting in the benefit for both employees and the company, making social responsibility a lever for effective internal marketing. (Hubak, 2010: 9)

3. ANALYSIS OF RESEARCH RESULTS

In order to address the topic of socially responsible marketing in public transport of passengers and goods, a survey was conducted for this paper on the example of HŽ Passenger transport and FlixBus using their website to collect information on their marketing activities and data on the perception of transport users through an online survey. The reason for choosing these companies is that they belong to different traffic branches and operate throughout the Republic of Croatia (RH). Thus they are recognizable to the respondents in the survey. The survey questionnaire aimed to determine the respondents, actual or potential users of transport services, how they assess the importance and image of selected public transport companies, and their focus on sustainable development and socially responsible marketing. Respondents also filled in personal data related to gender and age group and answered several personal preferences when choosing the model and type of transport. The answers to the questions asked are analyzed individually, followed by comparing the two selected companies, and finally comparing the perception of transport users and carriers on the essential factors of socially responsible marketing.

3.1. Attitudes of the HŽ Passenger transport company

Railway transport in the Republic of Croatia has a long history that began back in 1860 and was a dominant form of public transport in a certain period. Its recent history began in 1990 when the Republic of Croatia founded a company called Croatian Railways on the Yugoslav Railways' legacies. Since then, the vehicle fleet's modernization, transport infrastructure, and work technology have begun, and these processes continue today. The main activity of the company is the transport of passengers in domestic and international traffic. Which makes it belong to significant international associations. Although the company's founder is the state, which largely finances the company's operations with budget funds, the company is increasingly oriented to market conditions in performing its activities. This implies the obligation of corporate social responsibility, sustainable development, and socially responsible marketing. Accordingly, "Passenger transport by providing reliable, quality, economically and environmentally friendly services in urban-suburban, local-regional, international and domestic long-distance transport with modern mobile facilities. Also with a vision that expresses the idea: "To become the leading transport company in Croatia focused on mass and quality passenger rail transport, by market principles, guided by the owner's interests and protecting them, and to the satisfaction of transport users and workers."

To achieve the stated mission and vision, digital marketing is used to a significant extent. In their business, they emphasize environmental well-being for the society as a whole and safety for users of following Rail transport is the most environmentally friendly type of transport and sustainable for a longer period of time, which has a much smaller impact on the climate and the environment. They have also improved their business in ticket sales and customer information, providing additional benefits like purchasing a ticket using digital technology in business and marketing. The most common form of donation or sponsorship is in the form of free or preferential transportation (for young people), and to a lesser extent, these are financial resources (to veterans' associations).

3.2. Attitudes of FlixBus transport company

Public road passenger transport in the Republic of Croatia is performed by numerous companies oriented to market business conditions. FlixBus is a German bus operator that provides passenger transport services on intercity and international bus lines throughout Europe. It was founded in 2013 after the end of Germany's railway monopoly as a small start-up company. Today it has branches in several countries, one of which is in Zagreb. In the market of road transport services, the company offered a new business concept to digitize the traditional way of traveling under the slogan "Discover the world, traveling in a green and innovative way." The company bases its corporate social responsibility on transport services, respecting safety, sustainability, transport users' satisfaction, eco-friendliness, and price competitiveness. Providing travel safety is substantiated because the bus is the safest means of road transport, especially if we consider that their buses are equipped with the latest electronic auxiliary systems with the highest safety standards. The company business's sustainability is based on respect for generally accepted social goals and a responsible environmental protection attitude. They emphasize the "green bus" as a road vehicle that saves energy and thus reductively pollutes the environment with greenhouse gases, and they also include "Climate Protection Contribution" of 1% to 3% of the travel price in the price of the bus ticket. Special importance is given to transport users' satisfaction and to monitor and question passengers' opinions continuously. As per the survey results, which encompassed 20,000 passengers, 97% were satisfied with the service and would recommend it to friends and relatives (94%). They especially praised the bus's punctuality, their drivers' cooperativeness, and the great comfort of traveling with free Wi-Fi on all buses. With this level of service, they offer very competitive prices, lower than the price of railway tickets (which are subsidized by the budget) and various benefits for children, for group travel, for people accompanying people with disabilities and the like. In their business, they rely on partnerships with local transport companies and travel agencies. In line with the business goals, the company directs its marketing activities primarily using digital technology. Corporate social responsibility and socially responsible marketing in HŽ Passenger transport and FlixBus companies are also manifested in their agreement on cooperation of 19th December 2019 bus's punctuality integrated transport of passengers using a joint ticket was introduced in the Republic of Croatia. This form of transport will be increasingly important in the future because it brings into effect the advantages of different modes of transport in achieving sustainable mobility of the population.

3.3. Attitudes of transport users towards socially responsible marketing

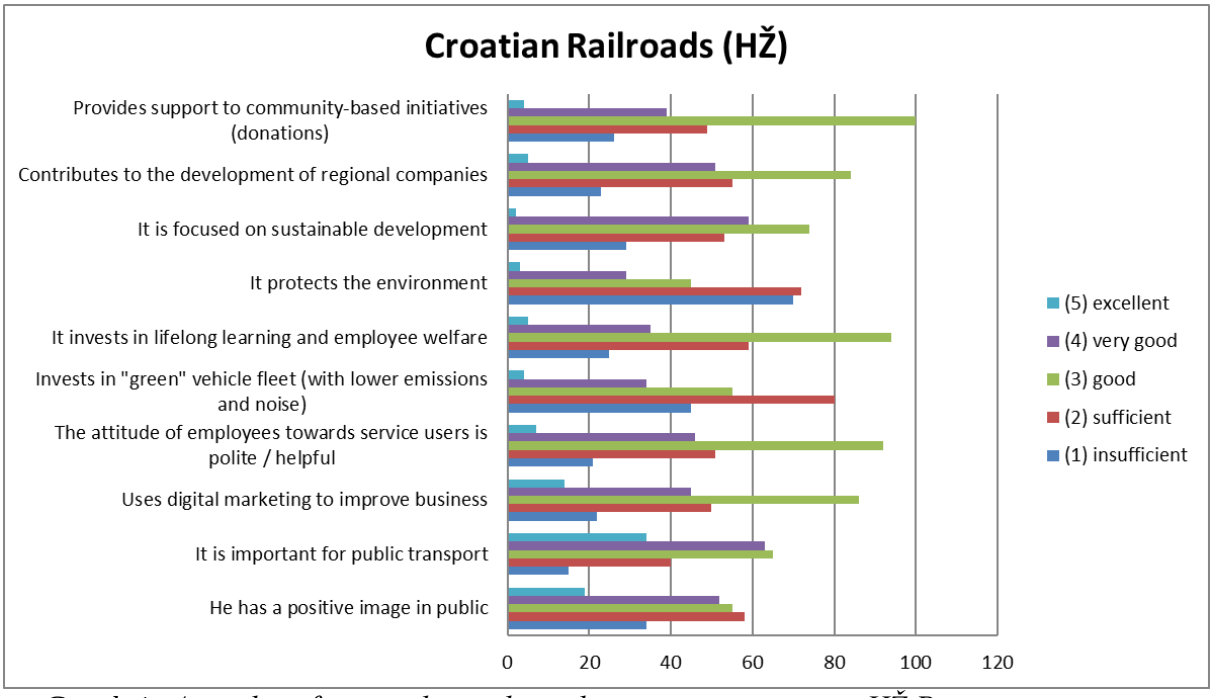
To determine the attitudes of existing or potential transport users about socially responsible marketing of transport companies, a survey was conducted on a sample of 220 respondents. The survey questionnaire was created in the Google docs program from April 7, 2020, to April 20, 2020. Invitations to complete the survey were sent via e-mail, mobile applications, and social networks to various people's addresses from the author's environment. Of the total number of respondents in the survey, 2/3 are men, and 1/3 are women.

Most respondents belong to younger age groups. 46.8% of them are aged 26-32, and 23.2% are aged 18-25. The research is conducted on the population of younger generations traveling for work and study purposes. Among the respondents, the group of persons with completed secondary education (50.5%) predominates, followed by the group with a college education (26.4%) and with higher education (15.5%). The share of a group of unqualified persons or unnamed education is less than 10%. Out of 220 surveyed persons, 122 or (55.5%) are employed persons, and 41 persons (18.6%) belong to the group of students. It follows from the above indicators that active persons (employees and students) were surveyed, which is also a more mobile population group. Respondents most often use public transport occasionally for various purposes (23.2%) or travel to an educational institution (22.3%). Immediately after that, the reason for using public transport is tourist travel (18.6%). Work travel was as frequent as travel for recreation (15%), while business travel was represented by (12.3%). When traveling, respondents most often use road transport (54.1%), followed by rail (25.9%) and air (13.2%). Water transport is used the least because the respondents are mostly from the continental part of the Republic of Croatia. According to the subjective experience, the respondents estimated that they were partially satisfied with transport companies' services in 53.2%. ¼ of respondents are satisfied, and 9.5% are delighted. 12.3% of them are dissatisfied. Of the respondents, the overwhelming majority, 70.5%, believe that transport companies do not operate under sufficient social responsibility. They are positively assessed by 29.5% of respondents. How respondents assess the application of socially responsible marketing in transport companies is illustrated by the fact that 60.9% of residents believe that such a marketing method is not used, while 39.1% positively perceive them. Respondents ranked the listed carrier selection factors by importance as follows:

1) Security
2) Comfort
3) Punctuality
4) Eco-friendliness
5) Transportation cost
6) Speed
7) Regularity
8) Availability.

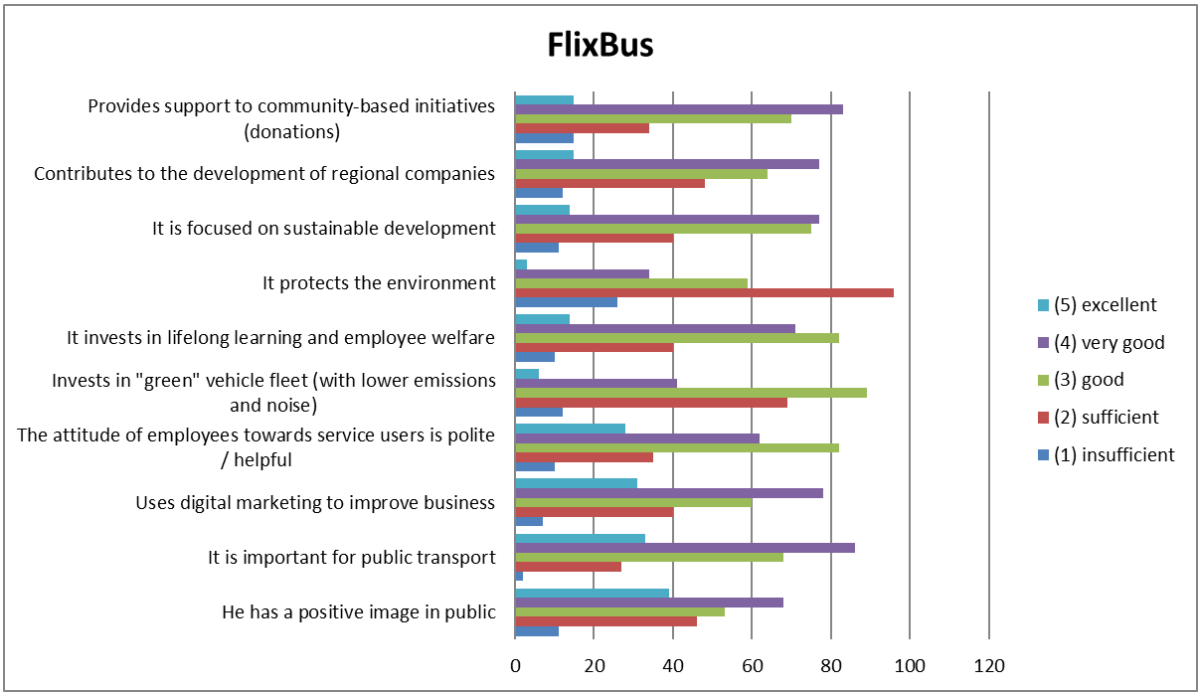
In the survey related to HŽ Passenger transport company, they expressed very indicative views when evaluating the respondents' statements. They have a predominantly positive opinion about the perception of the company's attitude towards socially useful initiatives in the community, contribution to the development of regional companies, focus on sustainable development, investment in lifelong learning and employee well-being, employees' attitude towards transport users, the use of digital marketing, the importance of public transport and the company's image. In the stated opinions, the predominant score is good (3), and the remaining scores have a distribution similar to the Gaussian curve. They have a predominantly negative perception of the company's attitude towards environmental protection and investment in a "green" vehicle fleet.

Graph following on the next page



Graph 1: Attitudes of respondents about the transport company HŽ Passenger transport (Author's own processing)

Respondents' opinions on the perception of FlixBus in the survey; predominantly, respondents give a very good (4) and excellent (5) grade for supporting socially beneficial initiatives, the contribution to the development of regional companies, focus on sustainable development, employee attitude towards transport users, use of digital marketing, the importance in public transport and public image. They score lower than good (3) for environmental protection and investment in a "green" vehicle fleet. They rated the importance of public transport for passengers the best and protecting the environment the worst.



Graph 2: Attitudes of respondents about the FlixBus transport company (Author's own processing)

Based on the collected data on transport companies that are leaders in passenger transport in the Republic of Croatia, and the collected data of respondents on the perception of these companies and their own preferences concerning corporate social responsibility and socially responsible marketing, it is evident that companies see themselves differently. The mission, vision, and business goals in the HŽ Passenger transport and FlixBus companies are focused on corporate social responsibility and socially responsible marketing supported by digital technologies. The HŽ Passenger transport company uses marketing activities to present its comparative advantages, which primarily relate to railway transport's environmental friendliness and safety in passenger transport. The road passenger transport leader, FlixBus, points out the same advantages comparing its services to road transport of passengers by car. Undoubtedly, their claims are true, but service users do not perceive them that way. On the contrary, it is precisely these characteristics that users rated the lowest. Accordingly, users estimate that no company invests enough in "green" means of transport, whereas the companies point out that they invest in this development component. At FlixBus, they are aware that road transport is a major polluter of the environment and that they have limited opportunities to reduce greenhouse gas emissions, so they encourage the payment of "climate protection contributions" by increasing the price of a transport ticket by 1% to 3%. It is certainly a socially useful idea, but it is only feasible by raising the awareness of transport users about the need to protect the environment and a higher level of passengers' purchasing power. Given that respondents ranked environmental friendliness fourth as a factor influencing their choice of carrier when traveling, it is not expected that they will significantly support the idea of paying "climate protection contributions." However, it is encouraging that the transport price is behind (in the fifth place) the said factor. Safety and comfort of travel are the main factors influencing carriers' choice, and carriers know this, so marketing activities emphasize this feature through all channels, especially digital technology. According to the respondents, FlixBus is a far more successful company in creating a positive image, which also implies a better assessment of the company's perception of sustainable development and the use of digital technology in marketing and business in general. The data collected from the respondents indicate that the majority of passengers using public transport are younger people (18 to 40 years), and it is the working population who travel to work, school/college, or for leisure. They most often use road transport, and half as much rail. Therefore, it is imperative to introduce integrated passenger transport using the comparative advantages of road and rail with HŽ Passenger transport and FlixBus single ticket. Implementing such a mode of transport, the current, relatively unfavorable assessment of respondents on satisfaction with public carriers' transport service, socially responsible business, and the use of socially responsible marketing, will certainly be better.

4. CONCLUSION

Corporate social responsibility has gone through many stages and definitions throughout history. As time goes on, technology advances and the world changes. This leads to greater air pollution and damage to the environment, but these are not the only factors that are an integral part of corporate social responsibility. Every company has a different corporate social responsibility. For some, environmental protection is more important, while it is more important to care for employees for others. Today's coronavirus crisis is an excellent indicator of CSR's basic principles and how companies differ in this situation, although they are engaged in the same activity. In HŽ Cargo, there is an increased interest in providing freight transport services among companies that previously transported their cargo by truck. Given that these are mostly smaller quantities of cargo compared to the quantities normally transported by rail, HŽ Cargo says that they have enough capacity to become an alternative to road transport in this situation and the future. With the advancement of technology, digital marketing is also advancing.

The example of FlixBus shows clearly how important representation on all social networks is, how important ticket booking applications, or, for example, public transport for people with disabilities are. The analysis of transport companies and users' attitudes concludes that users do not share the same opinion with companies about corporate social responsibility. According to the respondents, FlixBus is a far more successful company in creating a positive image, which also implies a better assessment of the company's perception of sustainable development and the use of digital technology in marketing and business in general.

LITERATURE:

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THE CAUSES AND CONSEQUENCES OF THE DEVALUATION OF NATIONAL CURRENCIES

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ABSTRACT

Issues of depreciation of public monetary forms are getting applicable because of the requirement for some legislatures to animate financial turn of events. Devaluation has become a significant issue because of macroeconomic issues. The subjects of examination are the present status of the financial arrangement of different nations, the purposes behind the devaluation of public monetary forms, the effect of the adjustment in the key pace of the US Central bank on the economies of different nations. National Banks and other regulatory organizations are accountable for settling on choices on the deterioration of the money. Such a choice can be made as an official devaluation of the public money, refusal to help the conversion scale, refusal from the cash passageway, or from fixing the public cash to other nations' trade rates or cash assets. The fundamental goals of the devaluation are to decrease the shortage of installment balance, increment the seriousness of public merchandise on the market, and backing its homegrown creation. A huge increment in the instability of the public money rate, brought about by both the devaluating of public monetary forms requires a more complete investigation. National banks of any nation continually need to pick how to seek after an autonomous money related strategy. They should decline to control the conversion standard, in the other, they ought to hold fast to the fixed swapping scale system at the cost of deserting the free financial strategy. The explanations behind the cheapening rely upon the expense of crude materials removed and nations where the economy is centered around the creation of merchandise and their deal in unfamiliar business sectors. This is the execution of the spending plan, and in the second - the insurance of homegrown makers. The decision of the National Bank to devalue the national currency indicates that this method is resorted to when traditional levers of influence on the economy do not work. The devaluation of the national currencies of major economies suggests the beginning of currency wars between major economic powers. The current experience associated with devaluations suggests that the main objectives are to support competitiveness and formulate a deficit-free budget. States with market economies always strive to balance their economies, including the way of devaluing the national currency. Devaluation becomes relevant under the uneven inflation in an open market economy for macroeconomic factors. The level of devaluation is different in different countries.

The level of devaluation of the national currency is influenced by gold and foreign exchange reserves, the dependence of the country's budget on the cost of resources sold, diversification of the economy and other factors.
Keywords: *devaluation, hidden devaluation, national currency, exchange rate, inflation, monetary policy, budget deficit, the central bank, gold and foreign exchange reserves*

1. INTRODUCTION

The Great Depression in the mid-1930s prompted the fast refusal of all nations from the highest quality level, except for the US. Albeit officially the gold substance of the cash could be safeguarded, yet just as a swapping scale marker comparative with different monetary forms. In the US, in any case, during this period, gold was legitimately eliminated from private possession. Simultaneously, attempting to counter the developing of the monetary plunge, all members of worldwide exchange took the way of forcefully expanding levy and non-duty obstructions, just as limitations on cross-outskirt capital developments. In such conditions, the most straightforward approach to guarantee net fares was a serious degrading. Since basically all nations have taken this way, this wonder was later called money wars [1]. Be that as it may, a sharp dismissal of the gold insurance for their monetary standards and serious depreciations caused significantly more prominent troubles in adjusting unfamiliar exchange instalments. Accordingly, the portion of the deal in global exchange expanded, and clearing associations were made to take care of the issues of net-shippers through the association of counterbalances. In such conditions, the cash in global exchange from a target marker of the equalization of gracefully and interest for merchandise, administrations and capital between various nations continuously started to transform into an approach-based method for instalment. The dynamic utilization of the conversion scale of various nations as an instrument of the state's monetary strategy to build up a macroeconomic balance in the public economy requires concentrating how the causes, ways, and level of objective accomplishment are accomplished. As of now, the issues of devaluation of public monetary standards are getting applicable regarding the rise of the need in numerous administrations to animate financial turn of events. Cheapening is because of past total macroeconomic elements. Direct devaluation depends on a focal choice of the bank or other administrative body of the nation. Such a choice can be made as legitimate cheapening of the public cash, refusal to help the conversion standard, money hallway or fixing the public cash to other trade paces of nations or money bushels. The fundamental targets of the devaluation is to diminish the equalization of instalments shortage, increment the seriousness of homegrown merchandise on the world market, and invigorate homegrown money creation. The expression "devaluation" alludes to the cycle of deterioration of the public cash, that is, the principle money for repayments in a single region. Devaluation is the official state-perceived devaluation of the public money against other cash rates. In a globalized world monetary framework, depreciation measures go past the constraints of one nation and depict the proportion of trade rates comparative with one another. This is the principle distinction from expansion, which depicts the elements of costs carefully inside one nation. After the nullification of the gold cash same, devaluating turned into the fundamental methods for controlling money to expand the inward intensity of product makers. In the XX century. there were more than 400 devaluations of public monetary forms. In all nations, development measures happen ceaselessly, or money deterioration happens. It is accepted that the deterioration of any cash can be known as a devaluation if it is sufficiently noteworthy.

2. METHODOLOGY

Using the methods of observation, grouping, induction, deduction, and classification, we analyzed the devaluations in different countries.

3. LITERATURE REVIEW

Depreciation investigation has zeroed in on possible pay and business impacts. Depreciation was observed as methods for supporting public fares and improving the intensity of traded products on the global market. During the 1930s. nations confronting homegrown constrain chose to cheapen their public monetary standards in the desire for facilitating homegrown weight. There is a various present-day logical exploration on the turn of events and improvement of hypotheses that review the devaluation of public monetary forms. If it is hypothetically expected that budgetary globalization will prompt full capital versatility, at that point, as per financial aspects, thoughts regarding the viability of money related strategy are principal because of the picked conversion scale system. This introduction is principally founded on the Mandell-Fleming model, which is an all-encompassing rendition of the IS-LM model of neoclassical union for an open economy [2]. It ought to be noticed that the model of the utilization of Mandell-Fleming is getting conventional for evaluating the adequacy of financial strategy in the predetermined conditions. The financial specialists of any nation continually need to pick how to direct an autonomous money related strategy. In one case, they need to relinquish the guideline of the conversion scale, in the other, to stick to a fixed waiver of the conversion scale with the cost of a free financial strategy. This decision was a coursebook and gotten the name of the situation of the supposed inconceivable trinity (unimaginable trinity). This suggests that the economy cannot at the same time be available at a fixed swapping scale, full capital versatility and money related strategy pointed toward accomplishing homegrown objectives. The changing conditions in the worldwide economy-related with the development of capital between nations have reacted to two principal regions: the continuation of the line of R. Kahn and J.M. Keynes [3,4]. The impact of the national bank on financial activity in the present moment is restricted by the quick development of momentary versatile capital streams. At the point when national banks lower loan fees, they leave the nation looking for more significant yields, which hug affect financial turn of events. Over the long haul, capital surges because of money related arrangement facilitating can prompt a fall in the conversion scale. Therefore, on one hand, fares will be invigorated, and on the other, the expansion will be quickened, including through rising costs for imported merchandise. Along these lines, we concur with those researchers who accept that the viability of financial strategy is legitimately subject to the decision of the conversion standard system. This cycle itself assumes a significant part with regards to money related globalization, particularly in that financial strategy, including the devaluation of the public cash, is getting progressively interconnected with the continuous financial approach in the nation. Practice shows that the advancement of cash limitations ought to be done in a more adjusted manner since it conveys extra dangers. Simultaneously, a twofold assignment falls on the public national banks: keeping up the strength of the homegrown money related circle and the budgetary framework. A significant comment was made by M. Agliett and A. Orleans: the hour of the expansion round was supplanted by the unpredictability of costs for money related resources simultaneously as the possibly deflationary impact for the economy in case of a sharp fall in loan fees on monetary business sectors [5]. As indicated by the analysts, this is the thing that adds to settling pressures in exceptionally brought together public budgetary frameworks. These researchers are zeroing in on the deflationary idea of monetary emergencies, taking note of that under these conditions there is a fall in resource costs, which implies that we need to discuss patterns in the ascent of collapse. The circumstance in monetarily created nations impacts current inflationary cycles in different nations. This prompts the powerlessness of public governments to support obligation in unfamiliar cash at current rates. The outcome is the probability that driving nations will have the option to rebuild the obligation trouble on their financial plans and in this manner lose trust borrowers and speculators. Therefore, any spending shortfall will at some point or another be adapted by cash cheapening.

A few researchers are thinking about another plan; the working of financial zones did not depend on the interest for cash, however on the gracefully and request of acquired assets gave by banks, and giving impressive consideration to establishments. Consequently, as indicated by their idea, there is the chance of dynamic money related approach even with regards to monetary globalization, prompting a slow levelling of loan costs. The truth of the matter is that in these conditions the public national bank may give assets to business banks in the nation and accordingly influence the credit offer. Be that as it may, as Russian practice shows, financing costs on cheapening and loan fee derivation can prompt extra degrading, since obtaining cash from business banks of the national bank doesn't loan to the economy, and pulling back cash to the unfamiliar trade market for the hypothesis. Thusly, in current financial aspects, attempting to consider the causes and outcomes of changes in return rates, there are various headings, schools and bearings. By and by, we concur with the finishes of M.A. Panilova that the entire variety of swapping scale hypotheses can be diminished to two methodologies: administrative and positive [6]. A positive methodology accepts the conversion scale of examination as a given objective, at that point, its elements are considered and future qualities are anticipated. The administrative methodology thinks about what the conversion scale ought to be as far as the ideal monetary strategy. Valuation issues are likewise tended to in the ever-improving equalization of instalments hypotheses. E.M. Petrikova, having contemplated the current fundamental charging hypotheses of parity, arrives at the resolution that in the new world the money related framework ought to fulfil various conditions:

- its activity ought not to be reliant on any public or interstate money related foundations;
- it is intended to advance powerful worldwide instalments and fabricate monetary and financial relations between nations;
- it should naturally streamline instalment uneven characters and limit the event of money related emergencies in the worldwide economy [7].

Numerous reasons cause depreciation. Generally, this wonder happens affected by different macroeconomic elements. Reasons that lead to a fall in the estimation of the public money incorporate the instalment deficiency (the state needs more assets to pay its commitments to different nations), decay in the nation's exchange balance when imports surpass fares, and high swelling. Depreciation can likewise happen because of the debilitating of the state's economy because of emergencies, wars, cataclysmic events, and major innovative mishaps.

4. ANALYSIS OF THE PROBLEM

Consider how nations are situated, falling back on the devaluation of the public cash. The Basel Bank for Global Repayments has distributed a report expressing that in various driving Western nations, essential markdown rates are at a record low, which has just prompted a specific lopsidedness in monetary turn of events, obligation development and, thus, budgetary dangers. Efficiency turns out to be excessively frail, and the space for move-in macroeconomic strategy is restricted [7]. The report additionally noticed that the decrease in oil costs has just prompted certain basic changes in the economy. Presently it should exploit the national banks of the main nations of the world and move away from strategies that zeroed in exclusively on the money-related guideline. As you most likely are aware, there is a Keynesian methodology, and afterwards the operational utilization of cash as a device for every day the board of the financial circumstance and the movement of animating monetary turn of events. The Basel Bank for Global Settlements proposes to restrict the impact of unconstrained market stabilizers. One of the approaches to invigorate the financial improvement move is the devaluation of public money. The current act of depreciation recommends that, as in the previous century, the primary targets are improving seriousness and the arrangement of a satisfactory financial plan. Market economies consistently endeavour to adjust their economies, including by devaluation the

public money. For instance, the Public Bank of Switzerland (SNB) toward the beginning of Walk 2009 took various measures to debilitate the public cash. This occurred after he expressed that solid public cash makes an "insufficient entanglement of financial conditions" during a period when the national bank is battling with a downturn in the Swiss economy. Seeking after the objective of supporting homegrown makers in the current emergency conditions in the expectation of expanding the intensity of the public economy, the Swiss national bank purposely devaluated the public cash. Subsequently, Switzerland purposely went to the deterioration of its franc against different monetary standards. The intercession of such a huge focal market action of the bank opened the route for other national banks to follow their model. Experts state that this progression added to the start of a rivalry between nations in the field of cheapening. The national banks of various nations occasionally execute different projects to invigorate their economies through financial measures. In any case, the case of a Swiss bank that attached the franc to euro estimations of 1.2 indicated that the utilization of hard stakes in any event, for monetarily created nations is full of danger. The truth of the matter is that the obligation emergency in Europe made the Swiss franc fascinating money for keeping reserves. In any case, such a hard relationship required the obtaining by the Public Bank of Switzerland of expanding the measure of the euro and spending its gold stores. In the spring of 2015, the SNB relinquished the hard stake and deliberately went to reinforce the public cash. Such an unbending stake to any cash, even though devaluation, makes the money of a given nation reliant on the financial strategy of different nations. Japan is one of the most monetarily created nations effectively utilizing the devaluation of the public money to reestablish its economy. The quirk of the Japanese economy is that it has at least common assets. On one hand, this decreases the reliance of the public cash and spending plan at the expense of hydrocarbons. Simultaneously, the roundabout expenses of hydrocarbons influence the economy of Japan, as it is compelled to purchase oil items abroad. The financial recovery under the administration of Japanese Executive Shinzo Abe has even been given the name "Abenomics" when it rises up out of emptying traps; the print machine is utilized as the primary motivation measure. The embodiment of financial approach was not to forestall expansion, however, to conquer the negative ramifications for the collapse of the economy (restraint of shopper and venture interest). Therefore, the seriousness of fare situated makers expanded in Japan. Notwithstanding, the financial arrangement sought after toward this path constrained speculators to pull back assets from Japanese protections and put cash in euro named bonds. Sooner or later, this prompted the formation of dreams for defeating the emergency in various European nations (Italy, Spain, and so forth) Simultaneously, Asian nations have responded contrarily to Japan's financial strategy. Another explanation behind the devaluation is the need to shape the nation's spending shortage and its equalization. This reason for degrading is seen in nations where planning relies upon hydrocarbon costs. Russia and the Republic of Azerbaijan have a place with this gathering.

Figure following on the next page

Figure 1: The dynamics of the dollar-ruble [9]

In August-September 1998, the dollar conversion standard took off 3, 4 times in Russia from 6.18 to 21 rubles. In January 2000, it was at that point 29.5 (4.8 occasions as contrasted and August 1998). In the period from August 2008 to January 2009, the dollar took off 1.6 occasions from 23.40 to 36.45. July-December 2014 the ascent of the USD/RUB rate 2.35 occasions from 33, 70 to 79.25 (see figure 1). The quirk of Russia lies in the way that a model of financial development has been shaped, centred around the transformation of oil and gas as super-benefits in homegrown interest. She was given a quick increment in compensation in all areas and social exchanges, expanding macroeconomic strength. Be that as it may, business systems ended up being centred around extending creation, and expanding effectiveness didn't turn into a need. Devaluation in Turkey, Russia, Iran, Kazakhstan, Ukraine, Belarus, Georgia and other neighbouring nations has brought about an expansion in the costs of items created in Azerbaijan contrasted and the items delivered in these nations while decreasing the volume of fares of such items from the nation, the increment in imports from neighbouring nations negatively affected the unfamiliar exchange balance and caused a money surge from the nation. Simultaneously, homegrown and unfamiliar financial specialists put their advantages in Azerbaijan by selling their benefits in Azerbaijan, utilizing high-esteemed resources in Azerbaijan to fortify their unfamiliar trade stream. Expanded import volumes, declining trade volumes, expanded unfamiliar trade interest in the unfamiliar trade market, thusly, pressed the manat [10]. The administration trusting that oil costs would rise again soon as it was in 2008-2009, only the National Bank's financial stores were just seeking after a strategy pointed toward keeping up the conversion scale of manat against unfamiliar monetary forms in the unfamiliar trade market in January 2015 - January 2015 the National Bank's unfamiliar trade saves diminished by 16.5% in supreme terms and total terms by the US $ 2513.4 million to the US $ 12680 million [8]. Thusly, the unfamiliar trade stores of the National Bank, sparing stock and improving the intensity of items created in the nation, on February 21, 2015, the National Bank chose to devaluate the manat and changed 1 dollar over to 1.05 manat, 1euro = 1.19 because of the cheapening, the US dollar increased in value by 34.6% against the manat, while euro by 33.7%. The ascent in unfamiliar money messed some up in the financial existence of the nation. There were issues with the instalment of unfamiliar cash advances, the costs of imported items started to rise. Changes in return realized the expansion in costs for the items delivered in the nation.

Cheapening has additionally exasperated existing issues in the horticultural area. It worked out that the creation of wheat flour delivered in the nation was wasteful, and both flour and wheat were imported from abroad to satisfy the need. In this way, toward the finish of Walk, a 25% drop in bread costs was watched, which contacted the interests and brought about the disappointment of the monstrous populace whose ostensible pay stayed unaltered. To dispose of this problem, value included tax(VAT) on wheat import was annulled by the applicable announcement of nation's Leader. The estimates taken by the President on the fake cost increments were reinforced. The degrading of the manat will permit the State Financial plan to find from the Oil Asset. Along these lines, the measure of moves from the Oil Asset in the spending draft for 2015 was assessed at 10388 million manats, which would have been $ 13317.95 million ($ 1 = 0.78 manats) in US dollars [11]. After the main cheapening of manat, the Oil Asset needed to utilize $ 9893.33 million to get 10388 million manats to be moved to the state spending plan, which would spare 3424.62 million dollars. After the February degrading, it was expected that the tension on the manat would end and the security in the money market would proceed. However, not all things are true to form. Subsequently, in Spring December 2015, mediation of the National Bank (CB) into the money market proceeded to save the new conversion scale of the manat. Therefore, during February 2015, the CB's unfamiliar trade holds in total terms added up to 4758.8 million dollars, and relative articulation diminished by 1.76 occasions. Negative cycles in the cash market and depletion of unfamiliar trade saves in the money market constrained the Azerbaijani government to settle on a choice on the new devaluation of the manat by moving to drift swapping scale policy.On December 21, 2015, $1 = 1.55, and at 1 euro = 1.7 manats were allocated. As per the official information of the CB of Azerbaijan, the pace of manat on December 21, 2015, expanded by 47.63% or 0.501 AZN contrasted with December 18 and represented 1.55 AZN [12,13]. Concerning the euro conversion scale, the single cash of the Euro Zone has expanded by 47.88% or 0.5456 manats and represented 1.6850 manats. The pace of Russian ruble against the manat expanded by 47.3% or 0.007 manats, which represented 0.0218 manats. All in all, because of devaluations in 2015, the manat was 98.7% against the dollar and 91% against the euro. CB progress to drifting conversion scale and re-devaluation of manat further exasperated the issue of credit obligations in unfamiliar money in the financial area. The devaluation of manat in some sense has caused an aggravation among the populace, and the individuals who lost their trust in the public money chose to change over all that is left to unfamiliar cash, which, thus, expanded unfamiliar trade interest in the cash market. A comparative model is utilized in the Venezuelan economy. Since money guideline here has its particulars (the dollar flow in the nation is restricted), a sharp decrease in oil costs bothered the circumstance in the economy. Over 90% of Venezuelan fares go to the oil, and when its value drops by over half, the nation is moving toward default. Investigation of the biggest oil exporters on the planet in 2008 shows that in various nations the swapping scale system was unique. Most of the OPEC nations favoured sparing a fixed conversion standard to the public money of the US. Along these lines, they haven't utilized cheapening even notwithstanding the fall in oil costs (Saudi Arabia, UAE) or utilized it, however at least some (Kuwait, Qatar). For them, financial strength ended up being more significant. A gathering of different nations (Venezuela, Iran, Malaysia, Turkmenistan) isn't a business opportunity for public cash arrangement. The failure to change over public cash along with the chance of controlling exchange and speculation streams at different rates permitted this nation to deteriorate their monetary forms by close to 3-3.5%. The nations in the third gathering, where a coasting swapping scale was utilized, done a huge cheapening. In the gathering of oil exporters, the devaluation since mid-2008 was 24-27%, and in the gathering of gas exporters 21-25%. As we would see it, one of the significant parts of cheapening's prosperity is its speed. The National Banks of Norway and Australia quickly depreciated, and the rate was 0.25-0.31%.

The Russian ruble devalued against the dollar by practically twofold 0.18 per share. As the experience of Norway and Australia shows, a snappy depreciation permits you to adjust to the changing states of worldwide ware markets. A superficial devaluation of the Norwegian and Australian monetary standards finished in late 2008 and changed the adjustment and fortifying. A shut economy with a noteworthy drop in product costs and spending irregular characteristics, just as the absence of hold supports shaped in the nation during the time of high hydrocarbon costs, is compelled to cheapen the public cash. For instance, in Venezuela in February 2013, the public cash degraded against the US dollar by 46.5%. This choice was made because of the need to expand the budgetary exhibition of the administration and limit spending consumptions. Depreciation is intended to improve incomes, particularly pointed toward financing social projects for the poor in Venezuela. The majority of the monetary work dedicated to the achievement of Norway and the positive involvement with managing the "crude revile" was that the fundamental purpose behind the accomplishment of the arrangement was the improvement of the institutional climate in the broadest feeling of the word. Thusly, the Norwegian route is to establish a created financial climate with a low degree of devaluation while ensuring market and serious instruments. Various nations that are not oil exporters likewise needed to devaluate the public money in 2014. For instance, the new Israeli shekel was degraded by 12.7% toward the finish of July 2014. Nearby market analysts call attention to that the nation's economy was straightforwardly influenced by the financial decline in Russia. Israeli merchandise worth $ 3 billion was brought into the nation yearly, principally rural items (organic products, vegetables, blossoms). In 2014, the Public Bank of Kazakhstan additionally devaluated the tenge. The principle reasons referred to were the terrible monetary circumstance in the BRICS nations, capital surges from agricultural nations, the progress to the free development of the Russian ruble swapping scale. In 2014, in all-out imports to Kazakhstan, merchandise from Russia represented 36.2%. The fare of products from Kazakhstan to Russia is multiple times not as much as this volume. Subsequently, the Public Bank of Kazakhstan cheapened, seeking after the fundamental objective to secure homegrown makers. As should be obvious, the depreciation of the public monetary forms of oil exporters prompts the need to devaluate the monetary standards of the nations monetarily identified with them. What's more, some spend it to save the flexibly of their items to the nation's market, debasing their cash, others - to secure homegrown makers. Around 20 non-industrial nations depreciated public monetary forms in 2014–2015.

ВАЛЮТЫ

ProFinance.ru: консолидированный прогноз (median) ведущих банков и инвест. компаний

02.11.2018	Спот	4 кв. 2018	1 кв. 2019	2 кв. 2019	3 кв. 2019	2019	2020
EURRUB	74,9177	75,87	76,03	77,05	78,06	79,01	87,80
USDRUB	65,5752	66,30	66,00	66,00	66,05	65,00	65,10
EURUSD	1,1424	1,16	1,18	1,20	1,22	1,24	1,28
GBPUSD	1,3007	1,30	1,33	1,35	1,36	1,40	1,46
USDJPY	112,99	112,00	112,00	110,50	109,00	108,00	100,00
USDCHF	1,0016	0,99	0,98	0,98	0,97	0,98	0,93
EURGBP	0,87831	0,89	0,88	0,89	0,88	0,89	0,90
EURJPY	129,07	130,00	131,00	133,00	133,50	135,00	132,00
EURCHF	1,14423	1,14	1,15	1,16	1,18	1,19	1,20
AUDUSD	0,7244	0,72	0,73	0,74	0,75	0,75	0,76
USDCAD	1,3071	1,29	1,28	1,26	1,25	1,25	1,20

Figure 2: Consolidated forecast of leading banks and investment companies [9].

Independently, the Public Bank of China settled on a choice on the degrading of the public money. This was fundamental because of the need to help the nation's economy since the conventional switches nearly stopped to work. The depreciation of the Yuan has become an instrument that will tackle financial issues. It ought to likewise be noticed that the choice of Individuals' Bank of China followed the refusal of the Global Financial Asset to perceive the money save of China. From that point forward, the PRC turned out to be free in settling on choices about advancing its fares. Nonetheless, we accept that the Bank of China is in front of the US Central bank in the expansion of loan costs in the fall of 2015. This permits you to discuss the start of money battles between the biggest monetary forces on the planet. Devaluation in non-industrial nations lately has pulled in the consideration of market analysts of the Money related Occasions. Their investigation of changes in public trade paces of 107 nations in 2013–2015 and their fare and import in ensuing years demonstrated that there is no factual connection between money degrading and send out the volume, so the previous doesn't prompt an expansion in the last [14]. We accept that this examination somewhat replaces a definitive objective of the devaluation of the public cash, principally because of the way that for this situation the volume of oil supplies was estimated, not the incentive in public money. The deal is completed in dollars, and locally this income is changed over at another rate, which permits the spending plan to be executed with a base deficiency. An outline of public monetary forms shows that objectives and levels of depreciation are not the equivalents in various nations. In any case, the destinations of degrading include:

- protection of homegrown makers;
- ensuring the execution of a shortfall free spending plan;
- preservation of unfamiliar trade holds.

The degree of the devaluation of public money is affected by:

- the level of unfamiliar trade holds and, likewise, the capacity to help the financial plan;
- the reliance of the nation's financial plan on the expense of assets sold;
- economic broadening;
- the reliance of the public economy on the monetary arrangements of nations depreciating their monetary forms.

5. CONCLUSIONS AND SUGGESTIONS

Degrading, being a monetary cycle, has its upsides and downsides. The rise of devaluation involves various dangers for the state economy. The disservices incorporate the results of depreciation:

- loss of business notoriety, the nation turns out to be less appealing for unfamiliar accomplices;
- a critical abatement in the way of life and buying intensity of residents of the nation;
- decrease of social instalments;
- loss of trust in the public cash;
- a decrease in imports. Because of the exorbitant cost, imported merchandise become uncompetitive;
- decrease of speculations and creation assets pulled in from abroad;
- withdrawal of assets abroad;
- increasing the speed of expansion. For the most part, cheapening is joined by expansion - cost increment for customer merchandise are imported;
- enormous exchange of reserve funds to more steady unfamiliar monetary forms;
- early conclusion of bank stores, reluctance to keep assets in accounts;
- a noteworthy debilitating of the monetary and banking administrations market.

The preferences incorporate the outcomes of devaluation:

- improving the nation's parity of instalments;
- a noteworthy increment in income got from trade money exchanges. To sell products for deteriorating public money in the homegrown market gets unbeneficial, which prompts an expansion in fares of merchandise. This, thusly, expands the inflow of "hard" monetary standards into the nation;
- decrease of gold and unfamiliar trade saves. With degrading, there is no compelling reason to help the counterfeit conversion standard of the public cash to the detriment of gold and unfamiliar trade holds.
- a huge increment sought after for public items and merchandise of own creation;
- a huge increment and a critical increment in its creation.

Because of the acknowledgement of any aspect of the above choices, the estimation of unfamiliar cash is misleadingly decreased, the populace stops the mass trade in US dollars and euro and begins to purchase nearby products for the public money. Credit only instalments by bank cards invigorate the way toward restoring the cash flexibly to non-money accounts.
As the experience of cheapening shows, the working of the worldwide money related framework relies principally upon the direction of financial approach sought after in light of a legitimate concern for the economy of a specific state. The explanations behind the cheapening in nations that rely upon the expense of crude materials created, and in nations where the economy is centred around the creation of products and their usage in unfamiliar business sectors, are extraordinary. In the primary case, this is the execution of the financial plan, and in the second - the security of homegrown makers. The choice of Individuals' Bank of China to depreciate the public money proposes that this strategy is depended on when customary switches of effect on the economy don't work. The cheapening of the Yuan permits us to discuss the start of money battles between the major monetary forces. Devaluation gets pertinent in states of lopsided swelling in an open market economy, that is, because of macroeconomic components. The goals and the degree of depreciation are diverse in various nations. The degree of public money devaluation is affected by gold holds, the nation's spending reliance on the expense of sold assets, financial enhancement and different components.

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THE ROLE OF ENTREPRENEURSHIP IN THE MANAGEMENT OF ESCOS IN DEVELOPING COUNTRIES - A CASE STUDY ON JORDAN

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ABSTRACT

The Energy Service Companies' ESCOs providing a large area of energy solutions that includes design, develop and energy savings projects implementation. It provides all information on energy preservation, energy infrastructure outsourcing services, financial impact, and risk management. The energy service companies' ESCOs in Jordan provides all training consultations, technical, financial and commercial, services in the area of energy in Jordan. These companies are depending on the payment of client as well on financing the projects performed in the field of energy. The beginning phase of energy saving companies projects is mostly influential for the success of the entire project carried out in the client corporation. The main barriers facing ESCOs are the lack knowledge of these companies' and its role in the process of energy. The objective of this work is to explore the role of entrepreneurship of ESCOs in Jordan. A questionnaire was developed and handout to the ESCOs as well as to these companies' customers. The primary data collected from respondents was analyzed and presented statistically to show the role of these companies.

Keywords: *ESCO's business, ESCO's in Jordan, Descriptive Statistics*

1. INTRODUCTION

Energy efficiency as a term is commonly used these days by all energy company advertising and even by the government. This phrase refers to higher energy efficiency and better work for the same amount of energy. Energy efficiency means "the use of minimal power to perform an action such as switching on a light or providing a service such as heating water". For example, changing the home appliances used such as boilers and fridges and use the saving bulbs which saves lower energy than a traditional one. Another example is to use the double glazing and insulating cavity walls which reduces the amount of energy required in heating and cooling of a space. Reducing the energy used and improving its efficiency in building is of high importance in reducing the emissions as well as costs. However, the main concern is specifically due to the payback period of the first paid cost (Satchwell et al., 2010; Goldman et al., 2005; Vine, 2005; Bertoldi et al., 2006; Kiss et al., 2007; Urge-Vorsatz et al., 2007; Ellis, 2010; Sarkar, and Singh, 2010). Most tasks related to energy design develop and build as well as fund projects that aim to save energy and reduce energy cost. These have been done through what is called energy service companies (ESCOs). These companies also work to minimize the operation and the cost of maintenance. This means that the implementation of any energy project by the ESCOs is linked directly with energy cost savings. The Importance of ESCO's can be summarized as follows:

1) Introduce the professional engineer to help the improvement the energy efficiency
2) Create a new ESCO to assist the implementation of energy conservation policy
3) Encourage the energy user to improve their energy consumption system for cost and carbon emission reduction
4) Provides the capital to implement the project 5. Monitoring the efficiency during the payback period.

Usually, in transitioning and developing economies, the construction is rapidly happening and the priority is to ensure that these new constructions and housing comply to the high standard to ensure efficient energy consumption. In the developed world, retrofits are the main challenge to the current building. The mixture of the regulations and the financial incentives is of high importance in updating the measures of energy efficiency. This also includes the renovation of existing buildings (Bertoldi and Rezessy, 2005; Lee et al., 2003; Matthew et al., 2015) The main considerable reasons for the success of energy service companies are found in different international ESCO business studies are tested and analyzed, which is identified commonly as ESCO business barriers (Marino, et al., 2010; Marino, et al., 2011). These barriers are already presented in several literatures (Vine et al., 2005). ESCO simplify the interlocutor between labor market and the sector of education and training by providing a combined language to avoid labor market imponderables and maximize vocational and geographical mobility (Vine, 2005; Ellis, 2010; WEC, 2008; Painuly et al., 2003).

1) Connects people and jobs, by providing a joint language which helps the jobseekers to find a job matches to their skills;
2) Connects education and employment. Educational providers can use it to describe the predicted learning outcomes and to better understanding to the trends of labor market and future skills needs;
3) Connects labor markets at EU level, by working as a digital enabler of labor market mobility.

1.1. Energy sector Jordan

Most of the studies on the energy efficiency and energy service companies' tackle the business conditions in developing and developed countries. However, there are very few studies about the Arab World. Some of these studies identify the development barriers in the energy service companies at a general level. However, and based on our literature survey, there are no thorough research in Jordan conducted about success barriers of the energy service companies. It has been also found that the industry of energy services in Jordan is still in its new stages of development, thus, up to now only a few academic and nonacademic that operate under Jordanian market conditions. Figure 1 shows the energy sources that were used in Jordan for the period from 1990 - 2009. It shows that Jordan is mainly dependent on the petrol and its derivatives (58.7% in the year of 2009). The figure also shows that; Jordan has multiplied (doubled) its use of natural gas (38 % in the year of 2009). It also shows that electricity imported has increased pointedly during the period 2000 to 2005 (around 3.4 %), and then fall to 1.3 % of total value of energy in 2009. Only 2% of whole energy consumption in 2009 is for renewable energy, which includes the production of hydroelectric power, in addition to wind, and solar electricity.

Figure following on the next page

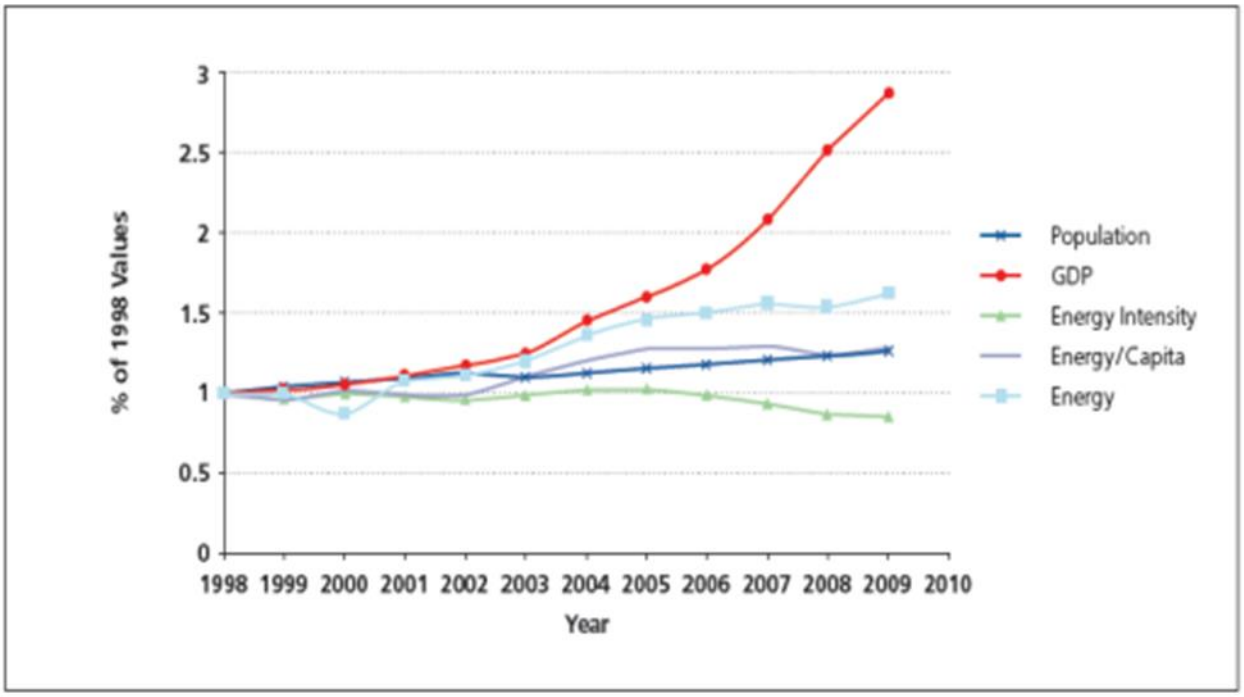
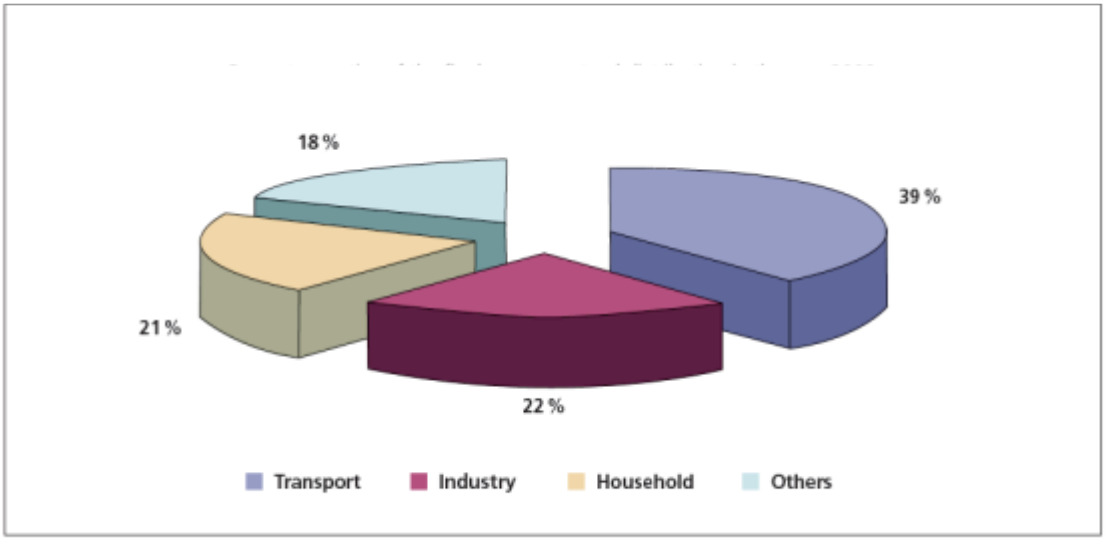


Figure 1: Energy sources used in Jordan for the period 1990 - 2009 (MEMR, 2009)

Figure 2 shows the percentage of consuming of electricity in Jordan at various sectors in 2009, and presents the percentage of the consumption for each sector. The figure shows that the largest user is the household user (41%), industrial (25%), commercial (16%), water pumping (15%), and street lightening (3%).



Source: MEMR, Annual Report 2009.

Figure 2: Percentage rates of consumption of electricity sectors in 2009 (MEMR, 2009)

2. METHODOLOGY

The objective of this work is to examine the entrepreneurship role of ESCO's in improving energy efficiency in Jordan. The work plans are to characterize the research methodology of the study, expound the selection of samples, characterize the steps used in instrument design and data collection, and finally, provides statistical procedures used in analyzing the data to attain the study objectives.

A descriptive method of research is used in this work. This method includes sufficient and precise findings interpretation. Comparatively, the method is suitable in this work as it purposes to characterize the current situation of Energy Saving Companies in Jordan and their entrepreneurship role in the area of energy. The standard survey approach and the valuation mechanism is used through descriptive method, which is usually used to recognize ideas of respondents representing the entire population. The survey is suitable for the study in this work because of its ability in the formulation of generalizations for the researchers conducting this work. Two types of data are used in this study, which are, the primary data through the use of direct-data survey using the survey, and the data collected from its main resources, which is derived from its findings presented in the related literatures as well as the annual reports on Jordan energy sector. The date taken from the survey is dependable because of direct interacts of researcher with the ESCO's clients. Two sets of questionnaires are used in this study. The first set was related to the ESCO's managements to analyze the current states of ESCO's in Jordan, including its characteristics, and barriers facing these companies in Jordan (11 companies) from the point of view of same companies' managements. The second set was to investigate the attitudes of ESCO's customers on the service quality providing by these companies after the completion of the whole project as well to analyze the real response of those customers on the economic aspects as well as the services. A list of customers with their addresses were obtained from energy service companies in Jordan. The first survey demonstrated that the total no. of implemented projects in Jordan were 406, which represents the number of customers of this survey. For the purpose of saving in the study time, only customers live in Amman were interviewed and questioned which are 233 customers representing a percentage of 575 from the total customers in Jordan. The rate of customer response from the total number are 86% which regards very good and highly acceptable for such studies. The names of ESCO's working in Jordan with its number of projects implemented in Amman, are ETA-max (35 projects), EMS (38 projects), ECOSOL (89 projects), National Energy Research Center NERC (81 Project), Kawar Energy (67 projects), Green Tech. (46 projects), Nur (26 projects), Noor Ala Noor (9 projects), Philips (7 projects), and Izzat Marji (8 projects). This means that the total project in Jordan are 406, which means that the market shares for these companies are 8.62%, 9.35%, 21.92%, 19.95%, 16.50%, 11.33%, 6.40%, 2.21%, 1.72%, 1.97% respectively. More than 60% of these projects are implemented in Amman. The above information shows that there are 4 large companies that implements around 65% of the total projects. This information is collected by direct collect from each company. Another interviews are managed with pertinent stakeholders. This includes the customers, non-customers, agencies and governmental authorities in order to enrich the discussion on ESCOs performance.

3. STATISTICAL ANALYSIS METHODS

In this work, a descriptive statistics method is used to analyze the respondent's opinions and characteristics, such as average, standard deviation, frequencies, and percentage.

1) The arithmetic mean is used to analyze the customer's response and whether it is high or low.
2) Comprehension the highest value of arithmetic mean (average) give the researcher a good understanding to the response of the study sample.
3) The standard deviation is used in this study to recognize the deviation for the responses of people contributing in this study for each variable and phrase, as well to the arithmetic mean of the main dimension. Thus the standard deviation shows the dissipation of customer responses contributed in the study.

4. DATA ANALYSIS AND DISCUSSION

The objective of this work is to analyze the ESCO's task in improving the efficiency of energy in Jordan. From the total questionnaires distributed (233), only 190 responses are collected. The suitable questionnaires suitable for the statistical analyses of this work are 180. In Jordan, 11 energy service companies are registered with total number of employees of 412. All of these companies are established between 1985 and 2010. The attitudes of ESCO's on the investment of energy investment can be outlined as follows:

1) Most of ESCO's conducting works in Jordan are small with a mean of 3.33 and Standard Deviation (SD) of 0.28, which indicates that the agreement of 5 points scale in this study are moderate.
2) The real saving for implementing energy service companies are achieved with a mean of 4.6 and SD of 0.95. These respondents show that the real saving implementation by energy service companies is accomplished comparing with the scale of 5 points used in this work.
3) Creation other services to customers in addition to the financial services that leads to reduce the cost, which are with a mean of 4.36 and SD of 0.57. It also showed as in point 2 above that these additional benefits to the customers are high.

The views and attitude of customer's relationship of energy service companies' clients can be presented as follows:

1) Clients doubts about the energy service companies and its energy saving ability are with a mean of 3.37 and SD of 0.4.
2) The sufficient evidence in improving the energy in media and public discussions are with a mean of 3.4 and SD of 0.63.
3) The companies that is not investing in energy efficiency and its effectiveness on the stakeholders are with a mean of 3.87 and SD of 0.89.
4) The success of energy service companies' projects and its developments in business can be improved by make a joint discussion forum for such companies with their subcontractors and clients to successfully interchange all related information for their projects, showed an a mean of 3.78 and SD of 0.92.

The averages for the above points showed a rising consent among respondent of this study. The barriers that are facing the energy service company's in Jordan, and it can be summarized as follows:

1) The indistinct strategy and policy shows a mean of 3.57 and a SD of 0.75.
2) The practices of non-supportive procurement shows a mean of 3.53 and a SD of 0.6.
3) The difficulties of fiscal issues shows a mean of 4.39 and a SD of 0.9.
4) The technical risks in business shows a mean of 3.77 and a SD of 0.5.
5) The distrust and encumbrance between stakeholders shows a mean of 3.12 and a SD of 0.8.
6) The lack of information and knowledge shows a mean of 4.5 and a SD of 0.9.

All above points as a total show a mean of 3.72 and a SD of 0.5. This shows that the obstacles that are facing the energy service companies is still high. The most barrier shown is that the customers and the financial establishments are not familiar with energy service companies works and concepts, followed by the lack of information.

5. EVALUATION OF THE ESCO'S SERVICES

The clients all around the world that requires a high quality services are increased in the last decades in all areas of provided services. This section analyzes the service quality of energy service companies in Jordan from their customer's point of view. The customers' measures towards the quality of energy service companies' quality is shown in Table 1.

Statement	Mean	SD
Measure of tangibility	4.09	0.69
Measure of reliability	3.83	0.78
Measure of response	3.87	0.71
Measure of assurance	3.73	0.65
Measure of empathy	3.65	0.59
Measure of ESCOs service quality	3.83	0.55

Table 1: Customers measures towards the quality of the ESCO's services

The above table shows that the customers' measures towards the quality of energy service companies in Jordan are higher than 3.5. This means that ESCO's providing services are high. Because of the shortage in information and the procurement of collection data of energy efficiency from customers, this study analyzes the economic measures and effects of energy service companies that are providing to their clients. This has been done by presenting the qualitative data collecting through the customer questionnaire. The mean and the standard deviation for 11 factors of tangibility measure are taken in this study. It shows that the ESCO's customers agree that the installation method of energy efficiency is visible from the economic viewpoint with a mean of 3.94, which reflects the acceptance of the measure scale used in this work. This is in addition to the high and large competitions in the energy efficiency market, which by the end help the customers in getting a reasonable and competitive prices for these services, taking into consideration that the installation and maintenance is considered low. The results showed an agreement about all financial and economic issues through the average response of around 3.5 out of 5 points used in this study.

6. DISCUSSIONS AND CONCLUSIONS

The aim of this analysis is to measure the role of entrepreneurship in the management of ESCOs in Jordan. Three major questions are used in this study, which are related to the barriers that are facing the work of these companies in Jordan, the ESCO's sate in Jordan, and finally, the service's quality provided by these companies and the economic impact of these service from the client's viewpoint.

- The study presents the ESCO's companies registered and worked in Jordan, which are actually started in 1993. These companies providing technical information, consulting, training as well provides financial services. Some of these companies provides two or more services to the clients.
- Most of Energy Saving Companies have sense that their customers are conscious of the value of the energy efficiency in a well manner. It is also found that the sector of major potential in Jordan is the financial and economic one. Six companies are found depends on customer payment to the conducted projects while there are other two financing these projects from other resources (third party).
- Most energy service companies' projects are of small size. It is found that the starting phase is of quite importance for the completion of the ESCO's project in the customer favor.
- The country polices and laws didn't help the energy service company's developments in Jordan. This leads to a conclusion that there is need to introduce this platform to achieve the energy efficiency goals and improve these activities.

This is in addition to several factors, barriers, and obstacles that is affected the role of these companies and its services. The tangibility measures of ESCO's services are studied and found that it takes the first place in the respondent, while the response of these companies to their customers' measures was found the second. The reliability dimension was found the third one.

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APPLICATION OF BALANCED SCORECARD FOR CONTINUOUS IMPROVEMENT OF ORGANIZATIONS AND MORE STABLE SOCIAL DEVELOPMENT

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ABSTRACT
The critical review of the evolution of the balanced scorecard model and the expansion of its application provide a solution to a key two-dimensional problem of managers from all sectors of social development related to the relationship between strategies and intangible assets. On the one hand, the strategic scorecard shows how the mobilization of human capital and the improvement of information resources increase the ability of modern organizations to generate value, and on the other hand the rethinking of strategic scorecards based on the development of organizational capital provides an opportunity for organizational actions to comply with new strategies that meet the high requirements of their informed and demanding customers. This way, the development of high integration and maximum coherence between the key intangible assets and the overall organizational activity, subordinated to the stated and necessary strategies would create conditions for continuous improvement of the organizations and more stable social development.
Keywords: *Balanced scorecard, Performance measurement, Strategic management, Control, Organisation*

1. INTRODUCTION

Nowadays, any organization can develop stable value by mobilizing its intangible assets, i.e. human capital, database and information systems, sensitive high quality processes, customer relationships and business measures, opportunities for innovation and organizational culture. In recent decades, there has been a trend of shifting the focus from an economy based on tangible assets and oriented towards the final product, to an economy based on intangible assets, knowledge and service. Even after the slowdown in the NASDAQ boom and dotcom companies, intangible assets that are not metrified by the financial systems of organizations comprise more than 75% of the value of today's leading and profitable organizations. In the structure of assets, the average amount of tangible assets or net book value excluding liabilities forms less than 25% of the market value of organizations. At both the macroeconomic and microeconomic levels, intangible assets play a crucial role in creating long-term value. In general, the nature of intangible assets to certain extent has no physical measurement, but benefits are expected from them. A number of definitions have been created for their characteristics, each addressing only some of the essential features of these specific "invisible"

assets (Friedag, Schmidt, 2002). According to International Accounting Standards (IAS) and Bulgarian accounting, intangible assets are in themselves non-current intangible assets involved in the production process and belonging to the enterprise by right of ownership. They have no physical characteristics, but are of particular value in terms of the priorities, rights and privileges in the production process based on them. Intangible assets are a key source of sustainable value accumulation (Stoyanov, 2012). Their condition determines the efficiency in the field of internal processes, financial condition and relationships with customers and suppliers. Modern theory of strategically oriented organization considers intangible assets as a trinity of:

- Human capital – skills, talent and knowledge;
- Information capital – networks, databases, information systems and technological infrastructure;
- Organizational capital – culture, image, leadership, employee synchronization, teamwork and knowledge management.

Commonly, none of the listed intangible assets can be measured separately and independently of the others. The value of intangible assets is a result of their role and specific ability to help organizations implement their strategies. At first glance, measuring abstract assets seems virtually impossible, but there are still some clear valuation principles. Intangible assets should not be measured in terms of the funds invested in their development, nor should their value be determined by independent parameters describing the financial equivalent or potential. The value needed for metrics depends on and is determined by the synchrony of the specific asset and the organizational strategy, or the relationship with the organizational priorities (Horvat & Partners, 2005). Towards the end of the century, this stimulated the active development and application of modern methodologies for analysis and measurement of satisfaction and loyalty of customers and staff, the development and evaluation of intellectual capital and others. Regarding the measurement of intangible assets, the leading good practices based on modern model constructions take advantage of the principles for measuring tangible and financial assets applied in the balance sheet. In the balance sheet the assets are reflected by categories, taking into account the hierarchical principle of ranking according to their degree of liquidity, i.e. the ability to transform into available means of payment. Under these conditions, human, information and organizational capital as quantities, in the end, through more sales and reduced costs, become the most liquid asset. In this line of thought, the opportunity or potential acquire the feature of certain readiness of intangible assets to maintain and implement the organizational strategy (Kaplan, Norton, 2004). It is due to this basis that a framework for measuring intangible assets can be structured.

2. HUMAN CAPITAL/RESOURCE

Although in the present phase of the development a certain content-thematic repetition is found in relation to the organizational staff, for the purposes of the development based on the financial and economic analysis, different points of view are revealed and reflected. Their place and role are presupposed and justified by the diversity of human presence and active actions in the conditionally accepted production process, which, regardless of its subject of activity, each organization implements to continue to exist. In the economic literature there are two concepts – human resources and human capital. Although these are etymologically and substantively different concepts, their unity and continuity are based on the general creative process that accompanies the production process, namely the creation of human capital through improvement of human resources, perceived as staff and involved in organizational activities for implementation of a specific strategy (Marra, Shmidt, 1997), reflected in the concept of "learning organization".

In modern management, that bases its decisions mainly on financial and economic analysis, two approaches are distinguished, providing an opportunity to reveal the nature and potential of this specific intangible asset – traditional and modern. Generally, the traditional approach considers such factors as number of workers, working hours, productivity and others. Whereas the modern approach takes into account factors contributing to the implementation of the strategy such as professional qualities, competence, readiness and opportunities for improvement. Each developing organization develops its own indicators of the state and readiness of human capital. These indicators consider skills, talent and know-how of the employees for the implementation of those internal processes and operations that are crucial for the implementation of the mission and strategy. The process of measuring staff readiness begins with defining the competencies needed for each employee involved in the implementation of the vital processes and operations of the organization. There are four stages in the structure of the process:

1) First stage: Defining strategic groups of professions.
2) Second stage: Developing a competency profile.
3) Third stage: Measuring the readiness of human capital.
4) Fourth stage: Creating a programme for human capital development.

Some organizations introduce an indicator (Stoyanov, 2016), which is created on the basis of the rating of each individual employee by segments, or:

Readiness level = $\sum$ [personal rating (for each employee and each segment)]

Suitability standards are based on strategic organizational needs and cover five main categories:

- Untrained employee;
- Employee with upcoming training;
- Employee in the process of training;
- Employee qualified within the segment;
- Training employee (qualified in all segments).

In the fourth stage, programmes for development and acquisition of specific insufficient competencies are actually developed in order to eliminate the mentioned gap or if the whole process is considered in its nature and content it accepts the features of an active management process dominated by the control function. Proof of the allegation is the presence of clear feedback and the implementation of the process where corrective actions are registered.

3. INFORMATION CAPITAL

Information capital is a raw material for creating value in the new economy. It consists of systems, database, libraries and networks. It enables the data and information to be useful and accessible for the organizations and has the specificity to generate value only when it consolidates with the peculiarities of the chosen strategy. An organization that sets out a strategy based on low overall costs receives a higher level of return than information systems focused on optimizing processes and workforce productivity. A strategy focused on the perception of customer decisions mainly benefits from information systems that provide information about customer preferences, improve customer relationships and form a customer base. A strategy focused on product leadership requires information capital to improve product development processes using systems such as 3D modeling, virtual prototyping, and CAD / CAM systems. The systematized structure of the information capital contains four levels – transformation, analytical and transactional applications and technological infrastructure (Table 1).

In general, the structure is formed by two components – technological structure and applications of information capital.

Description of information capital structure	
Information capital category	**Description**
Transformation applications	Systems and networks that change the business model of the organization
Analytical applications	Systems and networks that provide analysis, interpretation and exchange
Technological infrastructure	Technology and experience for implementation and application of inf. capital
Transactional applications	Systems automating basic, repetitive transactions

Table 1: Structure of information capital

The technological infrastructure includes technologies such as centralized computer systems and communication networks, as well as management experience in the field of standards, emergency planning and security. Information capital applications – sets of information, knowledge and technology are built on the technological infrastructure to support key internal processes of the organization such as innovation, customer management, operations management and social and regulatory processes (Omar, Strong, Kahn, 1999). The information capital applications themselves have the following essential characteristics:

- Transactional applications such as ERP systems automate major repetitive transactions in the organization;
- Analytical applications provide analysis, interpretation and exchange of information and knowledge;
- Transformation applications change the prevailing business of the organization. These applications may have features of the previous two types of applications, but the most important thing is that they have significant potential to influence strategic goals and provoke organizational changes.

Taken together, the technology infrastructure and applications create the information capital portfolio. The structure of this unique set, existing in the form of a portfolio, justifies the strategy itself and its implementation. In practice, certain portfolio structures have been established, ensuring the purposeful application of information capital and the implementation of specific strategies. A portfolio supporting innovation processes may include transactions (operations) – CAD/CAM programmes and new product development systems at the first level, knowledge management systems (KMS) for the exchange of best practices at the second (analytical) level and interactive systems, in which customers also participate in product development at the third (transformation) level. A portfolio that supports customer management processes typically begins with a first level based on transactions and systems (CRM) (Martin, 1998). The second (analytical) level provides data on the segmentation of the consumer market, as well as a system for measuring customer profitability. Third level, i.e. transformation applications are of the protocol type to support sales in customer service departments. For portfolios focused on production optimization, specialized peripherals such as supply chain management (SCM) and material reqirements planning (MRP) are provided for transaction systems, i.e. operations management systems. These applications integrate a set of systems for inventory control, order processing, control over the application of capacity – all systems that can work independently. The analytical level of this portfolio usually includes systems for analysis of products, quality and costs.

Although the structuring of different types of portfolios is essential for the application of information capital, their efficiency is at a high level only if they are supported by an adequate technological infrastructure, which is usually used by many programmes (Koory, Medley, 1987). Based on research in economics, a classification of the technological infrastructure of information capital is approved, including two groups and a total of ten main types.

First group. Physical infrastructure:
- Application infrastructure – applications for mass use;
- Communications management – broadband networks, incl. Internet;
- Database management – centralized data warehouses;
- Safety and risk – security policy, accident prevention and protection zones;
- Management of communication channels – websites, service centers, etc .;
- Management of computer equipment – servers, local networks, etc.

Second group. Management infrastructure:
- IT management – planning of information services, contracts and suppliers;
- Architecture and standards - for databases, for communications, for technologies, etc;
- IT education – trainings, lectures, etc.;
- Development of new IT technologies.

The technology for analysis of the information capital as part of the intangible assets by analogy is carried out the same way as with the other parts of these assets. In this process, a significant place is given to the synchronization of information capital and strategy. In connection to this, during the analysis of the information capital structure it was shared that the so-called portfolio is a really adequate information format, serving the strategic priorities. The analyzed specific process is undoubtedly creative in nature, but upon closer examination we can find another layer, which can be explained as the allocation of resources for strategic investments in information capital. The following factors must be taken into account when defining the basic principles in the development of a strategy for investment in information capital:
- Level of investments in new information capital projects;
- Optimal ratio of investments in terms of the strategic processes;
- Optimal ratio of investments in terms of the categories of information capital.

Taking into account the mentioned factors, investments in information technologies and the accumulation of information capital have been growing steadily in recent years. However, there is one problem that should be monitored and taken into account in the analysis, namely that about 90% of IT budgets are used to support existing applications. Only 10% of the funds are invested in discretionary investments, which actually create the strategic compliance. Discretionary costs support the new information capital proposals and projects needed to implement the chosen strategy. In general, the costs of new applications of information capital reflect two main trends: the replacement of obsolete systems with state-of-the-art technologies (ERP systems) and the implementation of completely new technologies in new applications (Stoyanov, 2009). Experience has shown, firstly, that at this stage investment in new information capital should be between 5% and 15% of the cost of information capital and secondly, that there should be a balance between investment in technology infrastructure and new applications. The focus in the analytical process related to information capital is put on the strategic readiness of its applications and infrastructure. As with other intangible assets, the readiness indicator measures the extent to which it is able to maintain its organizational strategy. In practice, there is a wide range of approaches to measuring the information capital portfolio.

The most commonly used method is a simple numeric indicator that determines the status of each application. A scheme with six levels of assessment is applied:

1) First level (grades 1-2) standard and operational applications;
2) Second level (score 3-4) new applications already funded and prepared for implementation;
3) Third level (grade 5-6) problem areas. Includes strategy support applications that are not funded and structured.

Another applied system is linked to subjective assessments created after measuring the results reflected in the information capital portfolio status report. The analytical possibilities of this method are wider, because the report is an excellent tool for monitoring the areas requiring increased attention and the dynamics of the ratios in terms of software. On the other hand, there is a creation of quantitative, objective assessments of the portfolio, which also take into account the users opinions about their level of satisfaction. Financial analysis of operating costs, as well as technical audit of the specific characteristics of the applications are also included. In this way, taking into account the overall results, the organization can develop a strategy for managing the portfolio of available assets of information capital as it manages tangible assets.

4. ORGANIZATIONAL CAPITAL

A definition that would fully and comprehensively describe the concept of "organizational capital" at this stage in the scientific literature can not be specified. One thing is for sure, its manifestations and possibility of interpretation are the most accurate and reliable, provided that it is considered in organizations oriented to a specific strategy. In organizations with high organizational capital, employees know and share vision, mission and strategy, and in terms of corporate culture it is strategically adequate, and knowledge is used at all levels, so the joint efforts of all employees are focused on the same goal. Conversely, an enterprise with poor organizational capital fails to even inform its employees of its priorities and to impose a new culture. Taking into account the above-mentioned statements, we can define concept as the ability of the organization to mobilize and maintain the processes of change necessary for the implementation of the chosen strategy (Stewart, 1991). Organizational capital provides an opportunity not only to synchronize intangible and tangible assets with the adopted strategy, but also to consolidate and work together to achieve strategic goals. As a rule, organizational capital has four foundamental elements:

- Organizational culture – awareness and individual mission statement, vision and values justifying the strategy;
- Leadership – preparation of qualified managers;
- Synchronization – consolidation of individual and common goals;
- Teamwork – exchange of knowledge at all levels.

The process of change, which actually encourages the development and improvement of organizational capital is logically organized and planned. The change is related to specific, structural changes, suggesting new patterns of behaviour and reconsidered in terms of content values needed in the use of labour. The process of accumulation of the organizational capital is long and planned. Based on its realization we can say that it is a peculiar process. It is based on the realization of organizational changes. The analysis of the process structure registers manifestations of a certain two-dimensionality, related to two fixed categories of goals:

1) First. Changes in the pattern of behaviour needed to create value sought by consumers and shareholders.
2) Second. Changes in the pattern of behaviour necessary for the implementation of the stated strategy.

The changes to the first category include three aspects:
- Customer orientation;
- Creative beginning and innovation;
- Result orientation.

The development of the second category is influenced by four trends:
- Awareness of mission and strategy;
- Formation and personification of responsibility;
- Effective communications;
- Teamwork and knowledge exchange.

The functional nature of organizational capital requires formal structuring to take into account the leading place of the content.

5. CONCLUSION

Statements used to describe the balanced scorecard and its role in improving intangible assets gives grounds to draw the following conclusions (Terziev et al., 2017, Terziev, Georgiev, 2017a):

1) First. Under the new increasingly dynamic, socio-economic conditions, modern organizations manage their activities with increasing importance of new factors of organizational success. Regardless of their main activity, the new socio-economic entities are influenced by the so-called intangible assets. Despite their difficult to visualize and define nature, these "invisible" assets, that mainly manifest themselves as human capital, information capital and organizational capital, are becoming increasingly important in creating value in the work of modern organizations and are becoming an increasing challenge for measurement and control.
2) Second. In the structure of organizational assets and in particular among the intangibles the main role belongs to the assets summarized in the category "Human capital". Despite the existence of different approaches to its study, analysis and improvement, based on modern concepts, human resources in their activities, acquiring knowledge, skills and experience are transformed into a specific organizational asset, which plays a key role in implementing organizational strategy. By accumulation of new professional qualities and acquisition of new levels of competence human capital becomes major driving force of organizational change. Due to the conscious purposefulness, it is human capital that mobilizes the other organizational assets, especially the intangible ones, and imposes new opportunities for value acquisition on the organizational activity.
3) Third. The development of information capital based on systems, networks, databases and libraries creates opportunities for each organization's strategies to become efficient and highly effective. The provision of data on the development of the markets and the market product realization enable the making of timely decisions for more flexible and effective management and reveal opportunities for the organizational changes to be as adequate as possible to the needs of the economic situation. The synchronization of the information capital with the other organizational assets and mainly with the intangible ones gives organizations that hidden advantage, which turns them into strategically oriented structures, which minimize the possibility of losing positions and value.
4) Fourth. Given that the only alternative for a modern organization is change, in this sense the main factor for success is the availability and presence of organizational capital. In fact, its leading position among the intangible factors for organizational success can be explained by the fact that it is through the opportunities it provides that the organization mobilizes, maintains and improves its processes, adapting them to the necessary change and thus

maintaining the closest connection between organizational activity and the stated strategy. This is the reason why the strategically oriented organizations strive to find balance on the one hand between efforts and expectations, between ideas and implementation, between plans and results, and on the other hand between all the so-called intangible organizational assets.

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