ISSN 0350-137X UDK: 338 (497,1)

ЕКОНОМИКА

2

LXVII NIŠ, 2021

МЕЂУНАРОДНИ ЧАСОПИС
ЗА ЕКОНОМСКУ ТЕОРИЈУ И ПРАКСУ И ДРУШТВЕНА ПИТАЊА

ЕКОНОМИКА

Часопис излази четири пута годишње Година LXVII, IV-VI 2021, број 2

ИЗДАВАЧ: Друштво економиста "Економика" Ниш
СУИЗДАВАЧИ: Институт за економику пољопривреде - Београд, Економски факултет у Суботици, Друштво економиста Ниша, Факултет за примењени менаџмент економију и финансије МЕФ - Београд

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2. Часопис су покренули Друштво економиста Ниша и Друштво инжињера и техничара Ниша (остало као издавач до краја 1964. године). Удружење књиговођа постаје издавач почев од броја 6-7/1958. године. Економски факултет у Нишу на основу своје одлуке броја 04-2021 од 26.12.1991. године постао је суиздавач "Економике". Такође и Економски факултет у ПриШтини постао је суиздавач од 1992. године. Почев од 1992. године суиздавач "Економике" је и Друштво за маркетинг региона Ниш. Као суиздавач "Економике" фигурирали су у току 1990-1996. године и Фонд за научни рад општине Ниш, Завод за просторно и урбанистичко планирање Ниш и Корпорација Винер Брокер Ниш.

3. Републички секретаријат за информације СР Србије својим Решењем бр. 651-126/73-02 од 27. новембра 1974. године усвојио је захтев "Економике" за упис у Регистар новина. Скупштина Друштва економиста Ниша на седници од 24. априла 1990. године статутарном одлуком потврдила је да "Економика" има статус правног лица. На седници Скупштине Друштва економиста Ниш од 11. новембра 1999. године донета је одлука да "Економика" отвори посебан жиро-рачун.

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Жиро рачун: динарски 160-19452-17

Штампа:
"MEDIVEST"
18000 Ниш
Тираж: 300 примерака

INTERNATIONAL JOURNAL
FOR ECONOMIC THEORY AND PRACTICE AND SOCIAL ISSUES

ЕКОНОМИКА

The Journal is issued four times a year. Year LXVII, IV-VI 2021, Vol. 2

PUBLISHER: Society of Economists "Ekonomika", Nis
COPUBLISHERS: Institute of agricultural economics - Belgrade, Faculty of Economics - Subotica, Economic Association of Nis, Faculty of Applied Economics and Management Finance MEF - Belgrade

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

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SSRN	ECONLIT	CNKI

Lector
VLADIMIR IVANOVIC

Prepress:
MILAN D. RANDJELOVIC
Cover:
PETAR OGNJANOVIC, DRAGAN MOMCILOVIC

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

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

Bank Account: 160-19452-17

Printed by:
“MEDIVEST”
18000 Niš
Copies: 300

САДРЖАЈ / CONTENT

ОРИГИНАЛНИ НАУЧНИ РАДОВИ / ORIGINAL SCIENTIFIC ARTICLE

Miloš Petković, Bojan Krstić, Tamara Rađenović

INTELLECTUAL CAPITAL INVESTMENTS AS THE DRIVER OF FUTURE COMPANY PERFORMANCE 1

ИНВЕСТИЦИЈЕ У ИНТЕЛЕКТУАЛНИ КАПИТАЛ КАО ПОКРЕТАЧ БУДУЋИХ ПЕРФОРМАНСИ ПРЕДУЗЕЋА 1

Dragan Momirović, Zoran Simonović, Aleksandar Kostić

ECB MONETARY POLICY DURING COVID-19 13

МОНЕТАРНА ПОЛИТИКА ЕСВ У ВРЕМЕ ПАНДЕМИЈЕ 13

Mirjana Knežević

PASSENGER TRANSPORT –THE CHALLENGES IN THE MODERN WORLD 23

ИНТЕРНЕТ ПРОМОЦИЈА МОРАВИЧКОГ УПРАВНОГ ОКРУГА КАО ТУРИСТИЧКЕ ДЕСТИНАЦИЈЕ 23

Goran Kvrgić, Dragan Milošević, Goran Ćorić

SMEs ECOSYSTEM AND BANKING FINANCE SUPPORT IN SERBIA 35

ЕКОСИСТЕМ MSP И ПОДРШКА ФИНАСИРАЊА БАНАКА У СРБИЈИ ... 35

Radmila Bjekić, Marijana Rodić, Marko Aleksić, Dimitrije Gašić

RELATIONSHIP BETWEEN SOCIAL COMPETENCES OF MANAGER AND LEADERSHIP OUTCOMES 47

ОБРАЧУН ТРАНСФЕРНИХ ЦЕНА – ТЕОРИЈСКЕ И ПРАКТИЧНЕ ИМПЛИКАЦИЈЕ НА РЕЗУЛТАТ 47

ПРЕГЛЕДНИ НАУЧНИ РАДОВИ / SCIENTIFIC REVIEW ARTICLE

Nikola Radić, Vlado Radić, Biljana Grujic

ECONOMIC IMPACT OF THE CORONAVIRUS PANDEMIC ON AIR TRAFFIC..... 59

ЕКОНОМСКИ УТИЦАЈ ПАНДЕМИЈЕ КОРОНА ВИРУСА НА ВАЗДУШНИ САОБРАЋАЈ 59

Daria Vladimirovna Palitsyna
THE MAIN FACTORS AFFECTING THE COMPETITIVENESS OF THE OIL PROCESSING COMPLEX 69
ГЛАВНИ ФАКТОРИ КОЈИ УТИЧУ НА КОНКУРЕНТНОСТ КОМПЛЕКСА ЗА ПРЕРАДУ УЉА 70

ЕКОНОМИКА
ISSN 0350-137X, EISSN 2334-9190, UDK 338 (497,1)
Vol. 67, april-june 2021, № 2
P. 1-11

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ORIGINAL SCIENTIFIC ARTICLE
DOI: 10.5937/ekonomika2102001P
Received: February, 26. 2021.
Accepted: April, 14. 2021.

INTELLECTUAL CAPITAL INVESTMENTS AS THE DRIVER OF FUTURE COMPANY PERFORMANCE

Abstract

Considering the twentieth century as a century of ideas, knowledge, innovations, information and changes, intellectual capital has been an interesting topic during the past few decades. Namely, intellectual capital is one of the most important company's strategic resource, which enables creating and sustaining competitive advantage. As yet, there is no unique approach in defining intellectual capital investments. The definition of intellectual capital investments depends on the main aim of study or practical implementation. Thus, the purpose of this paper is to analyse the different concepts of the intellectual capital investments in order to clarify the understanding of these investments either as company's additional expenditures or as investments that will generate future economic benefits. The analysis will enable drawing a conclusion whether intellectual capital investments are appreciated in the company's accounts as expenses or investments.

Key words: *Investments, Intellectual Capital, Value*

JEL classification: *L25, M41, O34*

ИНВЕСТИЦИЈЕ У ИНТЕЛЕКТУАЛНИ КАПИТАЛ КАО ПОКРЕТАЧ БУДУЋИХ ПЕРФОРМАНСИ ПРЕДУЗЕЋА

Апстракт

Посматрајући двадесети век, као век идеја, знања, иновација, информација и промена, интелектуални капитал је био и остао интересантна тема у последњих неколико деценија. Наиме, интелектуални капитал је један од најважнијих стратешких ресурса предузећа који омогућава стварање и одржавање конкурентске предности. За сада не постоји јединствен приступ у дефинисању инвестиција у интелектуални капитал. Дефиниција инвестиција у интелектуални капитал зависи од главног циља истраживања или практичне имплементације. Отуда је сврха овог рада анализирање различи-

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тих концепата инвестиција у интелектуални капитал како би се разјаснило разумевање ових инвестиција било као додатни трошак за предузеће или као инвестиција које ће генерисати будуће економске користи. Анализа ће омогућити да се дође до закључка да ли се инвестиције у интелектуални капитал сагледавају као трошкови или инвестиције у пословним књигама компаније.

Кључне речи: *инвестиције, интелектуални капитал, вредност*

Introduction

A unique definition of intellectual capital investments has not been found yet, because it mainly depends on the purpose of a study. On one side, investments are seen as expenditures for intellectual capital components (human capital, relational capital and structural capital). On the other side, some researchers see investments in intellectual capital as intangible investments, knowledge based investments, intangible activities, etc. (Lentjushenkova and Lapina, 2014). Many researchers observe intellectual capital investments as the key-drivers of company's financial performance. The definition of "investments" is not only focused on financial performance, but also on non-financial performance such as productivity, quality and improvement (Lentjushenkova and Lapina, 2014). Corrado et al. (2006) define investments as any use of resources that are not used for the current consumption, but that are used to increase and create long-term benefits. Most of the researchers link intellectual capital investments to R&D expenses (Bandeira and Afonso, 2010; Coombs and Bierly, 2006; Liebowitz and Suen, 2000). Based on the literature, intellectual capital investments are linked to value factors (Dumay, 2012).

The investment has its main ability to make contributions to more than one production cycle. The investment process leads to the accumulation in the form of an asset. Investments in intangibles include current and capital expenses for tangible and intangible resources that will remain in use for more than one year (OECD, 1998). In practice, expenses related to intangible products are recorded in company's accounts within non-capital part or operating part (OECD, 1998).

The goal of the paper is to analyse different definitions from various authors of investments in intellectual capital in order to clarify whether investments in intellectual capital and its components are seen as expense or investments for a company.

Conceptualization of Intellectual Capital Investments

In the knowledge-based economy, successful innovations require various kinds of investments in intangibles that will further produce intellectual capital. Further, intellectual capital is seen as future earning potential that will be obtained from investments in different components of intellectual capital and tangible assets at the same time (RICARDIS project, 2006). The OECD member countries have been rising awareness about the importance of their investments in the business sector, which are mainly concentrated on "investment products", such as R&D, software, training, marketing, etc. The availability of the financial information still remains scarce and limited

(Kaplan, 1987). By the study published by OECD (1998), investments in intellectual capital produce long-lasting rights or assets with or without physical substance that will generate future economic benefits for a company.

Investing in intellectual capital is highly important for companies that want to operationalize their strategies and perform better (Riahi-Belkaoui, 2003). Radjenovic and Krstic (2017) state that the company's strategy needs to develop internally the best competencies and capabilities, such as: databases, skills, organizational and technical competencies in which a company already has a considerable expertise, as well as to focus externally on the suppliers' networks which perform activities that must be bought in the market. The market-driven companies demand investments in both tangible and intangible assets at the same time (Day, 1994; Vorhies et al. 1999). The positive results will appear in the form of increased customer satisfaction, improved internal processes and enhanced final company's performance. What remains hidden are values of human resources, information systems, customer relationships, R&D, creativity and competence basis (Chen, 2002).

Rodriguez-Castellanos et al. (2011) prove that companies that invest in intellectual capital have a better economic result than those that do not. For Malone (2000), the biggest challenge for a company is how to convert intangible assets into market value. Edvinsson (2002) thinks that in the knowledge economy, the present value can change and be different from the value of yesterday or tomorrow. For example, French companies very often disclose financial information about "innovation revenues". Those are the revenues that come from the newly introduced and developed products. Such revenues are the proof that French companies have abilities to innovate and very quickly launch products or services on the market.

Measurement of Intellectual Capital Investments

Sichel (2008) offered three approaches for the measurement of intellectual capital investments – financial market valuation, other performance measures and direct expenditure data.

The first approach was explored in depth by Brynjolfsson & Yang, (1999), Brynjolfsson et al. (2000) and Brynjolfsson (2002), who identified a link between intangible investments and investments in computers in the US. Each dollar of investments in computers in a company is linked with between five and ten dollars of market value. This is explained as a huge interrelation between computer investments and existing intangibles in a company. Webster (2000) stated that every missing explanation about the market value of a company not explained by the existing balance sheet of tangible assets, must be explained by intangible assets.

The second approach uses other performance measurements for measuring intellectual capital investments, such as: productivity or earnings (Barnes & McClure, 2009). By using the proportion of labour force in jobs that produce intellectual capital Webster (2000) found that the growth of intangible investments is 2.8% per year for the last 25 years in Australia. Cummins (2005) insisted that the first two approaches can face problems and errors in measurement.

The third approach tries to link expenses directly to intangible capital (Barnes & McClure, 2009). This approach can also face measurement errors and data limitations, like

the previous two approaches (Barnes & McClure, 2009). Nakamura (1999, 2001) measured investments in intellectual capital by collecting all expenses in R&D, software, advertising and marketing, wages and salaries of employees. His results showed that trillions of dollars were invested in the US, with intellectual capital investments in the amount of 5 trillion dollars. Corrado et al. (2006) expanded Nakamura's works (1999, 2001) and gave measurement indicators for the previous study by Corrado et al. (2004, p. 183):

- *Computerized information*: Investments in computer software and computer databases available in national accounts;
- *Innovative property***:** Scientific R&D and Social sciences R&D are expenditures on R&D; Mineral exploration is the investment in mineral exploration available in national accounts; Copyright and license costs are investments available in national accounts; New product development in financial industry and new architectural and engineering designs are organized in 20% and 50% respectively regarding all the purchases by finance industry and sales of architectural and consulting engineering services;
- *Economic competencies***:** Advertising is advertising expenditure; Market research is available from sales of market research services; Human capital represents all direct costs and wage costs of employees in training; Organizational capital is 80% and 20% respectively regarding sales of management consulting services and salaries of managers and administrators.

Regarding measurement, it is doubtful whether measurement should be expenditure-based or value-based (Lev, 2001; Bosworth & Webster, 2006; Hunter et al., 2005). Barnes and McClure (2009, p. 37) emphasized four main measurement steps and challenges involved in investments in intangibles:

1. Collect relevant financial data for expenditures on each intangible asset;
2. Apply time series of nominal expenses;
3. Determine the percentage of expenditure share that will be seen and treated as an investment;
4. Choose appropriate deflator to calculate the value.

The Potential Effects of Intellectual Capital Investments on Company Performance

Investments in intellectual capital very often do not generate immediate results and returns. Some period is necessary to produce effects on company performance. The results today must come from the investments made in previous periods (García-Zambrano et al., 2018). Results from investments in intellectual capital components vary from each other. For instance, studies by Awano et al. (2010) and Whittard et al., (2009) proved that investments in intellectual capital produce results after 3-5 years regarding training, reputation and branding, and 4-7 years regarding R&D and software. Previous research proved that a period of two (Hirschey and Weygandt, 1985) to seven years (Ballester et al., 2003; Sougiannis, 1994) is necessary for investments in R&D to be capitalized.

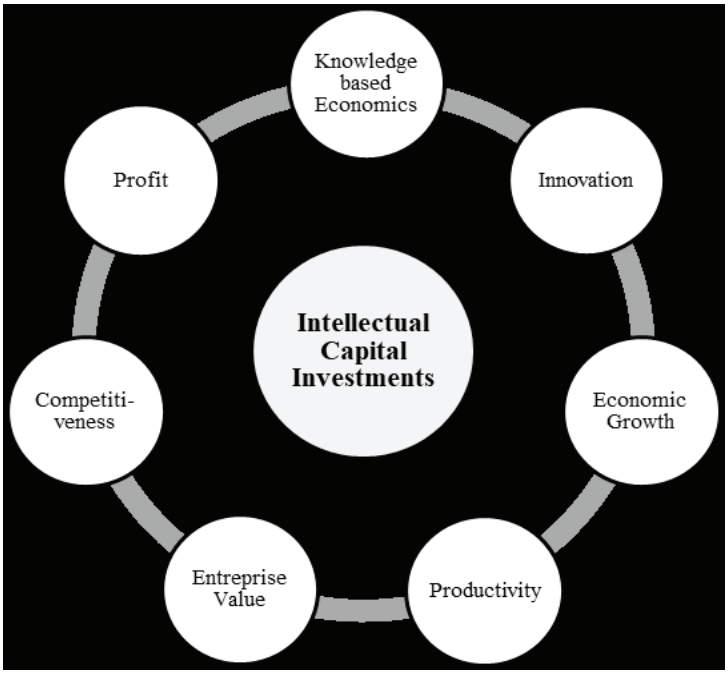

Figure 1: Concepts related to the intellectual capital investments potential outputs (Lentjushenkova and Lapina, 2014, p. 5)

There are seven main potential outputs that can come from intellectual capital investments (Figure 1), and those are: knowledge-based economics, profit, innovation, competitiveness, economic growth, enterprise value and productivity (Lentjushenkova and Lapina, 2014).

Analysis of the Existing Definitions of Intellectual Capital Investments

The Table 1 gives the overview of the definitions of intellectual capital investments from the literature that will be examined in the further steps.

Based on the existing literature, 24 definitions of investments in intellectual capital were analysed. From the 24 definitions, 16 definitions see the investments in intellectual capital as the investment that will bring future economic benefits to a company. This information proves that the managers are more motivated to make a decision to capitalize the long-term investments and create future value than to expense them in company's accounts. On the other side, the other 8 definitions see investments in intellectual capital as expenses. At the same time, this proves that investments in intellectual capital are more often seen as capital expenses, than operational expenses. Damodaran (2009) explores this issue in his study, where he emphasizes importance of capital costs, compared to operational costs. Capital expenses are expenses that will last for a longer period, bringing and generating benefits over multiple periods, compared to the operational expenses that are observed in just one business year without benefit expectations.

Table 1: Definitions of intellectual capital investments

Authors	Definitions of intellectual capital investments	Expenditures/ Investment
1. Hall et al. (1986)	Strategic expenditures must be seen as investments in strategic assets.	Investment
2. OECD (1998)	Investments in intangibles include current and capital expenses for tangible and intangible products that will remain in use for more than one year.	Investment
3. Deeds & Decarolis (1999)	R&D expenditures enhance a firm's knowledge that is coming through newly created and developed scientific achievements.	Expenditures
4. Canibano et al. (2000)	Investments in intellectual capital are seen as intangible activities. They are simply allocation of resources focused on: 1) Acquiring new or developing internally intangible resources; 2) Increasing the value; 3) Monitoring and evaluating the results of the previous two steps.	Investment
5. Klock & Megna (2000)	Advertising expenditures are used as a key measurement for the intellectual capital investments. These expenses have the positive impact on a company's Tobin Q ratio and market value.	Investment
6. Roos et al. (2001)	Investments in intellectual capital are company's expenditures for intellectual capital components that will result in a company's growth in the future.	Expenditures
7. Bontis and Fitz-enz (2002)	Expenditures in training and development are seen as investments in human capital.	Investment
8. Ballester et al. (2003)	Labour costs are seen as investments in intellectual capital, precisely in human capital.	Investment
9. Abernethy et al. (2003)	Investment in intellectual capital creates twice as much benefits to a company than the same investment in physical asset.	Investment
10. Youndt et al. (2004)	Authors examined investments in intellectual capital components and how those components coexist. To be more precise, the investments were made in Human resource management (HRM), Information technology (IT) and research and development (R&D). The results of this study were that HRM and IT investments tended to be more important than R&D investments across intellectual capital components	Investment
11. Huang and Liu (2005)	Investment in intellectual capital, precisely in innovation capital and IT capital have a non-linear relationship with company performance that implies that investment is not always better.	Expenditures

12. Andriessen & Stam (2005)	Values of intellectual capital are used as the intellectual capital future perspectives that will give insight into the future power of a company.	Investment
13. Corrado et al. (2006)	Expenditures related to economic competencies, innovative property and software are all used as intellectual capital investments.	Investment
14. Coombs & Bierly (2006)	R&D expenditures have a systematic influence on company's market value.	Investment
15. RICARDIS project (2006)	Investments in intellectual capital or innovative expenditures consist of internal and external R&D expenditures, acquisition of machinery, training and license.	Expenditures
16. Gaponenko and Orlova (2008)	Investments in intellectual capital are focused on the intellectual capital creation. The process is orientated on future benefit creation for achieving company's goals.	Investment
17. Awano et al. (2010)	Investments in intellectual capital are defined as expenditures for software, training, reputations, R&D, design and brand, and business process improvement.	Expenditures
18. Bandeira & Afonso (2010)	R&D expenditures are used as synonyms for intangible capital investments.	Expenditures
19. Piekkola (2011)	Intellectual capital investments are company's capital formation expenditures.	Expenditures
20. Boujelben & Fedhila (2011)	Investments in R&D, quality and advertising can affect cash flow operations.	Investment
21. Zéghal & Maaloul (2011)	The main value creators are intangible investments.	Investment
22. Corrado et al. (2012)	Intellectual capital investments are defined as intangible activities for a strategic goal in a company.	Investment
23. Molodchik 24. et al. (2012)	Intellectual capital investments are the intellectual capital part focused on improving a company's competitive advantage and performance that will cause the increase in company's value.	Investment
25. Lentjushenkova & Lapina (2014)	The intellectual capital investments are expenditures in different intangible assets and human resources of company.	Expenditures

Conclusion

The clarified definitions by various authors combine different concepts of intellectual capital investments, whether they are expenditures or investments, operational costs or capital costs. The paper analysed different definitions of intellectual capital investments from the existing literature review, and concluded that in the 24 observed definitions authors mostly saw them as investments. This approach improves understanding of investments in intellectual capital and its components, and their role in company's management. With this study, deficiencies in the understanding of current value creation and obstacles in collecting financial information that are related to the

investments in intellectual capital can be overcome. This is due to the fact that managers and decision-makers can be more stimulated to invest in company's intellectual capital and expect benefits on a longer time span.

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ЕКОНОМИКА
ISSN 0350-137X, EISSN 2334-9190, UDK 338 (497,1)
Vol. 67, april-june 2021, № 2
P. 13-22

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ORIGINAL SCIENTIFIC ARTICLE
DOI: 10.5937/ekonomika2102001P
Received: March, 12. 2021.
Accepted: April, 22. 2021.

ECB MONETARY POLICY DURING COVID-19

Abstract

This paper aims to point out the monetary policy measures that the European Central Bank has taken since the outbreak of the COVID-19 crisis. In the euro zone, at the start of the COVID-19 crisis, financial conditions deteriorated sharply, potentially threatening to worsen the economic outlook, deepen market fragmentation, jeopardize monetary policy transmission, encourage a downward inflationary trajectory, weaken prices and undermine public and private stability. Aware of the new situation of the ECB, it responded quickly and efficiently with coordinated and ambitious measures to alleviate the perceived financial and economic difficulties. To maintain a flexible monetary policy stance, the ECB adopted an interim non-standard measured COVID-19 Asset Purchase Program (PEPP) to mitigate and improve financial conditions and restart an earlier Asset Purchase Program (APP) aimed at inflation expectations. At the same time, other measures have been strengthened and expanded, such as Targeted Long-Term Refinancing Operations (LTROs, TLTRO III, and PLTRO) aimed at providing liquidity ampleness to the real sector and collateral standards. The implementation of the adopted measures has influenced the stabilization of the economic and financial system of the EU and improved lending to corporate and household banks.

Keywords: *ECB monetary policy, PEPP COVID-19, LTRO, Securities, financial conditions, financial crisis*

JEL classification: *G01, E3, E32*

МОНЕТАРНА ПОЛИТИКА ЕСВ У ВРЕМЕ ПАНДЕМИЈЕ

Апстракт

Циљ овог рада је да укаже на мере монетарне политике које Европска централна банка предузела од избијање кризе COVID-19. У еврозони, на старту кризе, дошло је до наглог погоршања финансијских услова који су потенцијално

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претили да погоршају економске изгледе, продубе фрагментацију тржишта, угрозе пренос монетарне политике, подстакну силазну путању инфлације, ослабе цене и уруше јавну и приватну стабилност. Свесна одговорности ЕСВ је одговорила брзо и ефикасно координираним и амбициозним мерама како би ублажиле уочене финансијске и економске невоље. Ради подстицаја прилагодљивог става монетарне политике, ЕСВ је усвојила привремену нестандардну меру Пандемијски програм куповине имовине (PEPP) са циљем ублажавања и побољшања финансијских услова и поновним покретањем ранијег Програма куповине имовине (APP) који је усмерен ка инфлационим очекивањима. Истовремено појачане су и проширене друге мере, попут Циљане операције дугорочног рефинансирања (LTROс, TLTRO III и PLTRO) за обезбеђење ликвидности и релаксацијом стандарда колатерала. Примена усвојених мера су утицале на стабилизацију економског и финансијског система ЕУ, побољшању кредитирања банака предузећа и домаћинства, подстакле узлазу путању инфлаторних очекивања и ублажиле ризике од фрагментације тржишта.

Кључне речи: монетарна политика, ECB, COVID-19, PEPP, LTRO, HoV, финансијски услови, финансијска криза

Introduction

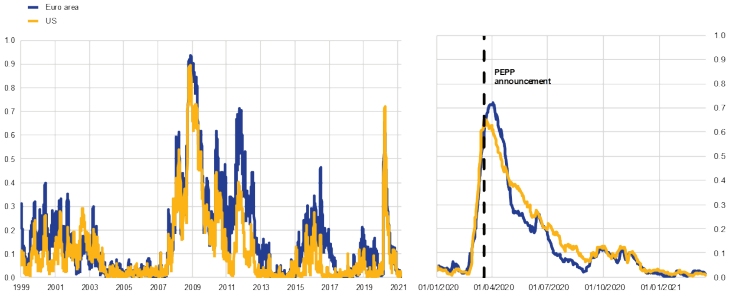
The outbreak of COVID-19 (further COVID-19) in the European Union (EU) and its rapid spread brought numerous troubles to the health system and threatened to jeopardize the economy. The shock of the COVID-19, in the inceptive phase, caused a health crisis with a large number of infected people and many cases with fatal outcomes. The expansion of the COVID-19 crisis has influenced policymakers in the eurozone to introduce emergency measures, locks to protect the population from this vicious COVID-19. At the same time, vaccination and closure measures have by taken to mitigate and prevent further widening COVID-19s that threatened to turn the health crisis into a financial crisis of unprecedented proportions. Therefore, the EU countries are at the beginning of the COVID-19 crisis faced with two serious challenges. Therefore, the EU countries are at the very beginning of the COVID-19 crisis faced with two serious challenges. The first challenge relates to protecting the health of the population and preserving the health system and the second challenge is connections to maintaining economic and financial stability. The European Central Bank (ECB) was the first in the defense, as many times before, to react to the COVID-19 defense wall. Concerned but not surprised, the ECB responded quickly and creatively to the challenges posed by the expansive of the COVID-19. The ECB encounter three serious challenges: the first to ensure a smooth monetary policy transmission mechanism, the second to mitigate market fragmentation, and the third to slow down the inflation path. Miss Lagarde, Christine, President of the ECB, pointed out that "unlike, in 2008-9, the shock we are facing is universal: it is common both across countries and across all sections of society. Everyone has to scale back their daily activities, and therefore their spending, for as long as the containment measures last. Essentially, for a temporary period, a large part of the economy is being switched off."

Background

The intensification of the crisis COVID-19 caused a decline on the supply side, which harmed demand. Such a development has led to a worsening of economic activity, above all, to the tightening of financial conditions. These deteriorations affected the fall in prices, the increase in yields in certain forms of property, and the euro appreciation. During the first two weeks of the crisis, in March, indicators expressing the level of stress in various market segments were very worrying. Financial conditions indices, which summaries our monetary policy stance by considering price movements in equity, bond, foreign exchange, and money markets, signaled an unprecedentedly sharp and abrupt degree of tightening in recent weeks. (Schnabel I, 2020)

Market index the falling value with parallel the increased cost in financing companies, significantly affected the deterioration of financial stability and further deepened the uncertainty, and caused worrying. (Momirović, Bankar, 26) Lagarde, K., says that "the risk-free curve is moving upwards, and the sovereign curves that are important for determining the prices of the entire property have also shifted everywhere and become more distracted." The distinctly negative trend on the financial markets threatened to challenges risks, especially the risk of falling liquidity and many markets the correction of property prices upwards. Potential sources of these threats and unpredictable events would directly jeopardize financial stability and implement monetary policy.

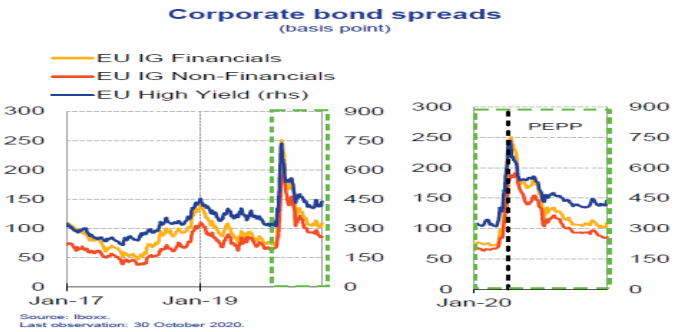
Graph 1.Indicator of systemic stress in financial markets (CISS) (index)
(0-not stress, 1-high stress)



Source: Working Paper Series, No 1426, ECB 2020

The deterioration in financial conditions was most pronounced in the securities market after liquidity dried up. The value of the shares fluctuated within a few weeks of the crisis, only to fall sharply by almost 40% as government bond yields rose in most countries. The fall in shares the value was a signal for the worrying investors who reoriented themselves and focused on buying property from safe sources. At the same time, in the acutely fragmented eurozone government bond market, there was an abrupt widening in the spread of lower-ranking government bonds. It is that spreads of corporate bonds are showed the levels that were the last during observed the public debt crisis in the eurozone.

Graph 2. Corporate bond spread (base points)



Source: Iboxx, Last observation: 30 October 2020

The ECB's response to the COVID-19

Aware of its responsibilities, the ECB has dedicated special attention to the choice of measures and policies to respond quickly and efficiently quickly to the difficulties that have befallen the eurozone economy. Worried that the delayed response would deepen and spread the crisis, the ECB reacted quickly, decisively, and creatively to mitigate and ensure that the public health crisis did not spill over into the financial crisis. The ECB has adopted a policy balance to mitigate financial difficulties and maintain the financial system and market money conditions. The ECB's response consists of three carefully selected sets of compatible measures, namely:

1. Pandemic emergency purchase program (PEPP) and new expanded APP,
2. Lending to the real sector (LTRO, s, TLTRO III. PLTRO),
3. Lender of last resort (last resort of liquidity) to solvent banks.

The adopted new and expanded own existing programs had a threefold goal:

1. To ensure that the overall monetary policy stance is sufficiently flexible,
2. Support the stabilization of financial markets to protecting the transmission mechanism of monetary policy,
3. Provide sufficient liquidity, in particular, to maintain current bank lending. (Aguilar, P., Arce, O.,Hurtado, S., Martínez-Martín, Nuño, G., and Thomas, C., 2020)

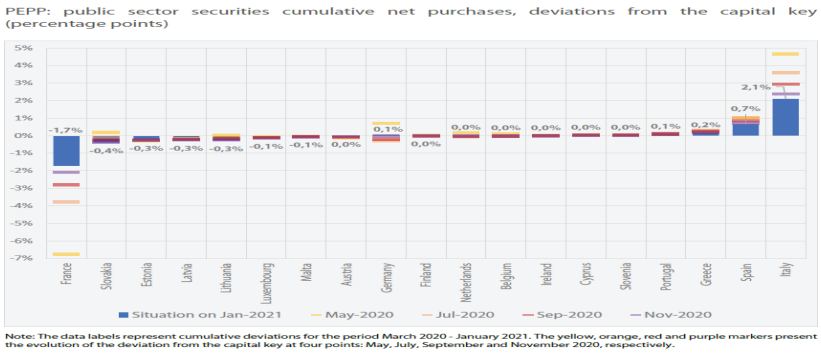
The essence of the adopted goals is "first to restore the orderly functioning of euro area financial markets, which suffered from an extraordinary degree of volatility, fast de-risking, and thin liquidity conditions. And second to ensure that our accommodative monetary policy continued to be transmitted to all parts of the single currency area, thereby supporting firms and households in shouldering the substantial economic and social costs that this crisis would imply". (Schnabel I, 2020) ECB has adopted measures to effectively contrast the risks in order threaten to jeopardize the transmission mechanism of monetary policy to cushion the blow to the economy, calm inflationary trends, and improve the outlook eurozone.The global financial crisis, caused by the COVID-19 pandemic, is still ongoing, and its finance consequences will be seen only in the years to come. (Gavrilović, Vučeković, 2020)

COVID-19 emergency purchase program (PEPP) and new expanded APP

The ECB has adopted a new, unconventional monetary policy measure, the PEPP-a. PEPP is a provisional measure, which started up on March 18, 2020, with an initial envelope of €750bn. From March to June 2020, the widening COVID-19 has affected the deterioration of financial conditions, the decline in economic activity, and the prolongation of the downward trajectory of the inflationary spiral. The ECB responded to this shock on July 4 by increasing the initial PEPP envelope by €600mn to €1.350bn to mitigate and prevent further worsening of the financial crisis. In the fourth quarter, 2020, there was a new widening of the Covid-19 and the adoption of new locking measures in many eurozone countries, which threatened to jeopardize the achieved favorable market and financial conditions. The ECB reacted to this occurrence by expanding the PEPP envelope by €500bn to €1.850bn. Also, the ECB changed the former time interval for the efforts and prolonged the PEPP until 22 March 2022, not excluding the possibility of further extension if the situation so requires. Until the end of 2023, the ECB will continue to manage the PEPP portfolio to conduct a successful monetary policy.

PEPP aims to decrease borrowing costs and increase lending. As expected that purchases by the public sectors within the PEPP-a will be carried out flexibly, with the competence of reference allocations being the capital key of national banks. It will make purchases during a pandemic "flexibly allocated to asset classes and between jurisdictions." (ECB, 2020) The program allows the provisional purchase of property of the same class from the private and public sectors.

Graph 3. Cumulative net purchases of public sector securities - deviation from the capital key in%



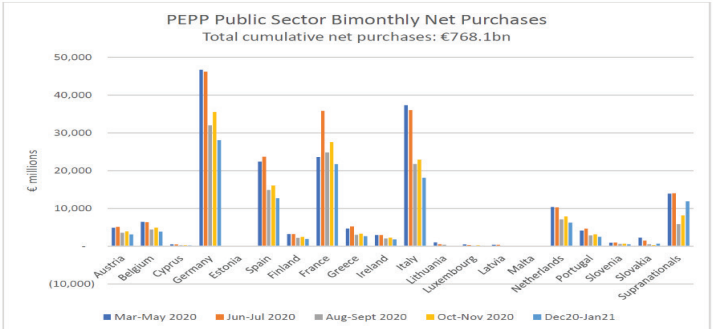
Note: The data labels represent cumulative deviations for the period March 2020 - January 2021. The yellow, orange, red and purple markers present the evolution of the deviation from the capital key at four points: May, July, September and November 2020, respectively.

Source: European Parliament (2021) The ECB, s Monetary Policy response to the COVID-19 Crisis

According to the capital key criterion, purchase effectiveness within the PEPP does not show a distinctly and deviation or significant instability. There was a discrepancy in the purchase of bonds through PEPP in Italy and France. It is noticeable that the ECB has made a large purchase of Italian bonds since the launch of the PEPP. The contribution of the capital key of Italy is 17% and, the purchases conducted of Italian government

bonds exceed that amount by 4.6% and amount to 21.6%. In France, the opposite is cases the contribution of bond purchases was below the level of the established capital key. Over time, with progressive adjustment, bond purchase by the eurozone countries achieved at the level of capital keys. Germany's capital key was determined at 26. 4%, while their contribution in purchases bonds varied from 25 to 27. 1%. By was observed that two-month and three-month purchases showed a higher degree of deviation from the established capital keys.

Graph 4. Purchases under PEPP

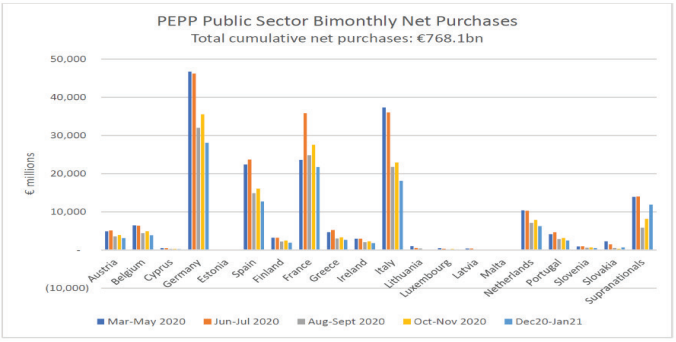


Source Schnabel I., (2021) The ECB's policy response to the COVID-19 pandemic University of Chicago Booth School of Business, 18 February

By the start-up of the PEPP from March 18, 2020, to January 2021, the ECB purchased €810bn worth of securities through this program. In the observed period, securities purchases amounted to 60% of the total targeted program purchases of €1.350 bn. Available data show that the dynamics of securities purchase realize in January 2021 was the lowest by the stat up of PEPP in March 2020. Within the PEPP, APP purchases were made from March 2020 to January 2021 for €333.2 bn. All categories of property eligible within the existing APP asset purchase program are also eligible within the PEPP. The new APP has been recalibrated by an additional €120bn, with purchases take place with €20bn a month. APP "includes the purchase of euro-denominated bonds issued by euro area-based non-banking corporations." (ICMA, 2021) Also, other programs, within, APP, Covered bond purchase program (CBPPP), and Asset-Backed Securities Purchase Program (ABSPP) and Public Sector Purchase Program (PSPP), and Corporate sector purchase program (CSPP), are acceptable and eligible with PEPP. The ECB has also committed to broadening the range of eligible assets under the existing CSPP to include commercial notice issued by non-financial institutions, making all commercial notice of 'sufficient credit quality' eligible for purchase under the CSPP. Purchases under the CSPP are conducted with counterparties that are eligible for the Eurosystem's monetary policy operations; these are effectively Eurozone banks. (Norton Rose Fulbright, 2020) Monthly net purchases of property under the APP will last as long as necessary to strengthen the adaptive impact of its interest rates that will be complete just before ECB key interest rates begin to rise. The completed reinvestment of principal payments from maturity-backed securities purchased within the APP will continue over a long time by the ECB to raise key interest rates. (National Bank Belgium, 2020) The expanded APP

aims to purchase a property by the public and private sectors to mitigate and eliminate the risks of too long a period of low inflation, maintain favorable liquidity conditions, and an extensive degree of monetary adjustment.

Graph 6. PEPP Public Sector Bimonthly New Purchase (Total cumulative net purchase EUR 768.1bn

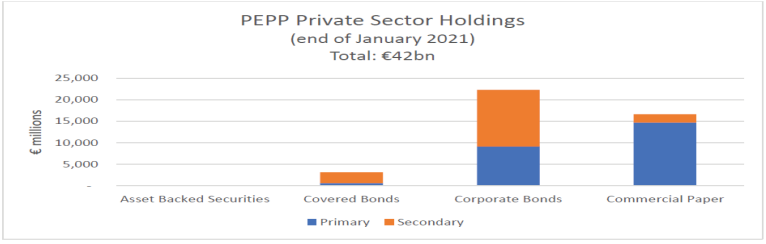


Source: ICMA analysis using ECB data

Source: ICMA

In the observed period March 2020-January 2021, through PEPP, bonds were purchased by the public sector for €768.1bn. Weekly purchases of public sector bonds were higher at the beginning of the COVID-19 outbreak, with a gradual decline until the end of 2020. The Purchases remained in great measure concentrated in bonds issued by Germany (€ 28.1bn), France (€ 21.8bn), and Italy (€18.1bn). (ICMA 2021)

Graph 7. PEPP Private Sector Holdings (Total EUR 42bn)

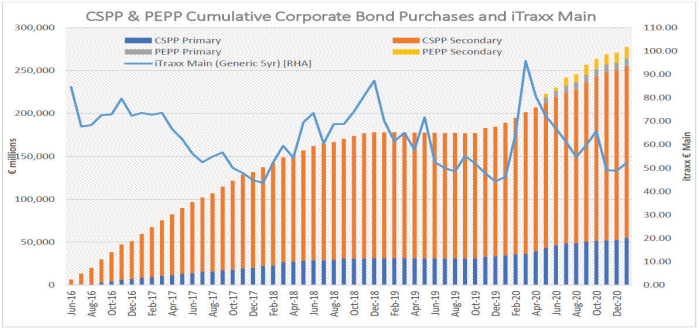


Source: ICMA analysis using ECB data

Source: ICMA analyses using ECB date

In the time, March 2020-2021, within PEPP, securities were purchased by the private sector in the amount of 42bn. In the last quarter of 2020, securities purchases in the private sector recorded a net-negative balance by the end of January 2021 in the structure of PEPP purchases, which amounted to 5%.

Graph 8. Cumulative purchases of corporate bonds through PEPP



Source: ICMA

Purchases under the CSPP dropped off in December 2020 (€2bn) before resuming their usual pace in January 2021 (€4.9bn) 1 This takes total net cumulative purchases under the CSPP to €255.3bn (of which €54.8bn, or 21%, are primary market purchases, and €200.6bn, or 79%, are secondary). Including the €22.3bn purchases of corporate bonds under the PEPP, this takes the total net cumulative purchases of corporate bonds to €277.6bn. (ICMA, 2021)

Long - term refinancing operations program

The LTROs operations are expected to be of limited range until June 2020 when they are replaced by the new and expanded TLTRO III. LTRO operations by conducted through a tender procedure with a fixed interest rate which is the same as the average interest rate on deposits. Targeted LTROs operations have the role of supporting the banking sector too, in these irregular conditions, continue to finance and protect the real sector from distress by supplying which is temporarily financing at an interest rate of 0.75%. At the same time, this program should provide an efficient backup in case of need and bridge liquidity in the interval until June 2020. By the outbreak of the COVID-19, the original expanded LTRO operations have provided liquidity to the eurozone financial system (real sector) for €388.9bn from March 18 to June 10, 2020. After that, the EU implemented TLTRO III.

TLTRO III is significant for increasing the financial potential and, it will support banks that lend to small and medium enterprises that are most affected by the COVID-19. For that purpose, the volume of financial resources for lending was increased and expanded within TLTRO III by €1.2bn. For more efficient implementation, supply restrictions have by removed to better harmonized participation in operations, and significant incentives for pricing in operations have by added. The sharpening of the crisis in the last quarter of 2020 caused the ECB to extend the initial period of utilization by one year until June 2022. During that period, the ECB decided to conduct three additional TLTRO III operations. Also, the ECB has increased its financial lending potential with the same borrowing conditions to ensure the free flow of credit to the real

sector. Refinancing interest rates in TLTRO III operations are negative -1% and -0.50%, respectively. In TLTRO III operations, counterparties will borrow financial means from the current 50% to 55% of their eligible and eligible loans and available to banks that achieve targeted lending performance. TLTRO III provides liquidity at lower borrowing costs and provides banks sources with advantages of financing, which encourages them to decrease, the issuance of bonds to private markets.

A new PELTRO program was launched by April 30, 2020, adjusted to current market conditions, to conduct seven refinancing operations for time from May to December 2020 and will be ceased by September 2021. The program focuses on supplying liquidity with a fixed interest rate. On December 10, 2021, the ECB broad the scope of PELTRO operations from four new to the existing seven, which should also be closed by 2021.

From the introduction of TRLTO III, by June 2020 to January 2021, completed purchased securities were various for €1.792bn. In the same period, ten TLTRO operations (3 TLTRO and 7 PELTRO) will implement, by which only tenders of June 24, 2020, is were in the number of allocated funds for €1.3bn by historic. PELTRO's financial operations were conducted, through seven tender procedures, between May 21 and December 3, 2020 with €26.57bn allocated.

Conclusion

A non-standard measure of the ECB's monetary policy, the PEPP has played a double positive role. First, the stabilization of financial markets has been achieved through the flexible purchase of large quantities of securities of classes different in all jurisdictions, thus bypassing the risk of market fragmentation, and second, providing a mechanism for transmission monetary policy to the entire euro area. Large purchases of various securities, through PEPP, provided a large amount of liquidity, which had the effect of mitigating the initial negatives financial conditions caused by the COVID-19. These benefits have helped keep borrowing costs lower in EU countries that use the euro as their currency.

Also, private sector purchases have significantly contributed to easing financial conditions for non-financial corporations (NFCs) and encouraged the revival of the primary market for corporate bond issuance. The spreads of investment bonds NFC and financial sector bonds relative to the risk-free rate remained stable at 59 and 70 basis points, respectively, in January 2021. Overall, there were only minor developments in corporate bonds, with current conditions appearing to be mostly measure based on ongoing fiscal and monetary policy support. (ECB Bulletin 2021)

Annual HICP inflation fell from 1.1% in the first quarter to -0.3% at the end of December 2020. In January and February 2021, annual inflation rose sharply from -0.3 compared to December to 0.9%. The rise in inflation is a consequence of several external circumstances related to the temporary reduction of VAT in Germany, the impact of energy prices on basic inflation, and the jump in oil prices on the world market. Inflation expectations will remain low in the future, even though market indicators of expected inflation are, in a sense, slightly increased. Inflationary expectations by based on mitigated pressure on prices due to weak demand in the tourism and travel sector, low pressures on wage increases, and the appreciation of the euro exchange rate.

With the introduction of the PEPP, the spread of sovereign yields by stopped, approaching the level before the COVID-19 crisis. Risk premiums in the government bond market are decreases and are close to before the crisis levels. The fall in the costs of companies and households is mitigated the negatives affect the crisis on the economy.

The adoption and implementation of quantitative easing measures (PEPP, TLTRO, and others measure) have led to overcoming uncertainties related to illiquidity, restoring and strengthening confidence, and reducing tensions. These displace have had a direct impact on decreasing the fragmentation of financial markets and raising optimism among participants.

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ЕКОНОМИКА
ISSN 0350-137X, EISSN 2334-9190, UDK 338 (497,1)
Vol. 67, april-june 2021, № 2
P. 23-34

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ORIGINAL SCIENTIFIC ARTICLE
DOI: 10.5937/ekonomika2102023K
Received: November, 26. 2021.
Accepted: January, 16. 2021.

PASSENGER TRANSPORT –THE CHALLENGES IN THE MODERN WORLD[2]

Abstract

In this paper, the author examines the domestic and international legal framework for the contract of carriage of passengers and itspresence in different transport modes and offers a response to the current challenges. The purpose of the paper is to analyzethe international and domestic regulations and present the rights and obligations of contracting partiesin order to facilitate its application in the emerging practice. The author recognizes passenger transport as a field full of modern challengescaused by novel, still underresearched risks to passengers'health. Special attention is paid to the contract of passenger carriage by rail. The advantages of this transport mode are examined, the obligations of railway carriers and passengers are presented, while the obligation of the railway carrier to accept transporting any interested person if they have vacancies is underlined. The analysis focuses on the significance of the contract of passenger transport in the modern environment where risks to passengers' healthare present. The author recognizes passenger transport by rail as a convenient and perspective branch of passenger transport for both international and domestic passenger transport. This sort of passenger transport already has the potential to respond to the challenges of preserving and strengthening the protection of passenger's rights, above all the right to safe and secure transportation.

Key words*: passenger transport, international regulations, domestic regulations*

JEL Classification: *K120, K200*

ПУТНИЧИ ПРЕВОЗ – ИЗАЗОВИ У САВРЕМЕНОМ ОКРУЖЕЊУ

Апстракт

У овом раду аутор разматра питање (домаћег и међународног) правног оквира уговора о превозу путника и његове заступљености у свакодневној пракси према гранама саобраћаја, заједно са одговором на изазове данашњице.

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[2] This paper is part of the project of the Faculty of Philosophy in Kosovska Mitrovica "Kosovo i Metohija između nacionalnog identiteta I evrointegracija" financed by the Ministry of Education, Science and Technological Development of the Republic of Serbia (project number: 47023).

Циљ рада је да кроз анализу међународних и домаћих прописа, приближи права и обавезе уговорних страна, а све то ради његове лакше примене у новонасталој пракси. Аутор препознаје путнички превоз као погодан терен за изазове данашњице, настале услед нових, још увек недовољно познатих ризика по здравље путника. Посебна пажња посвећена је уговору о превозу путника у железничком саобраћају, предностима оваквог превоза, као и приказу обавеза железничког превозиоца и путника са акцентом на обавезу превозиоца да прими на превоз сако заинтересовано лице уколико располаже слободним местима. Предмет овог рада је значај уговора о превозу путника у савременом окружењу где су присутни нови изазови по здравље путника. Аутор препознаје превоз путника у железничком саобраћају као погодну и перспективну грану путничког превоза за међународни, али и домаћи превоз путника. Ова врста путничког превоза има већ потенцијал у одговору на изазове очувања и јачања заштите права путника, пре свега права на сигуран и безбедан превоз.

Кључне речи: путнички превоз, међународни прописи, домаћа регулатива.

Introduction

Since the beginning of time transportation has played an important role in labour distribution. The development of transportation services has accompanied the development of the state and its social and economic progress. The Roman Empire differentiated between sea and land transport, as can be seen from historical evidence such as fare prices, vehicle descriptions and comparisons, and the documents of transport associations which dealt with transport organization. It is interesting to note that the comparison of prices shows that sea and river transport was much more inexpensive than land transport (Stanković. 2018). One might say that there is similarity in terms of land and water transport cost between today's and ancient states.

What has changed, apart from the fact that transport has been modernized? Is land transport still more expensive? Is there any room for improvement in today's world full of challenges? Today, air transport is expanding, especially in the field oftransoceanic passenger transport. It is hard to imagine that, until recently, the only possible mode of transoceanic passenger transport was transport by sea (Carić, 2000). Sea transport for such travel today survives mainly in the form of tourist challenges, cruises, fishing trips or adventure holidays offered by tour operators.

Passenger transport by air has become the dominant form of transoceanic passenger transport, and it is gaining a steady momentum as a form of cargo transport in modern economies. In comparison with water transport, aircraft capacities are yet to be improved. However, the type of goods being transported, their price and delivery deadlines may account for selective advantage of air over sea cargo transport. When it comes to passenger transport it is expected that some other reasons, apart from pricing and efficiency, will encourage passengers to conclude the contract of carriage in other transport branches.

Competition rules in transport market imply that the development of air transport will affect the development of road and rail transport, causing the development of new

transportation vehicles and forms. Passenger safety and health issues will have additional weight when choosing the type of transport. Today's circumstances (both domestic and international) are full of challenges and dangers to passengers' health. Risk assessment is expected to become one of the factors determining passengers' decision on how to reach a destination (either transoceanic or domestic). Is it safer to travel by air or land at a time when various viruses are spreading? Can a passenger exercise his/her rights under the same conditions if health risk occurs in domestic and international passenger transport, be it road or rail, air, sea or river transport? We have witnessed passengers being detained in vehicles (a cruiser, an airplane, a train) due to health measures during the Covid 19 pandemic. Only time can tell what are the advantages of certain passenger transport forms, so that it is logical to expect their current standing to change.

In such circumstances, it is sensible to ask whether the relationship between the price of land and sea transport will remain the same as it was in antiquity. Today, carriage of passengers by rail has certain specificities which will give it a competitive edge over the other passenger transport forms. Until recently, passenger rail transport in Serbia was an adventure – an archaic, sluggish and uneconomical journey. In spite of that, we maintain that passenger transport by land, including both road and rail transport, can be expected to flourish both technically and in terms of passenger safety in the world full of unexpected challenges and health hazards.

Domestic and international regulations

In carriage of passengers, the undertakings conducting their dominant or additional business operations conclude contracts of carriage of passengers and goods. Passenger transport is conducted by cars, buses, mini buses, trains, aircraft, ships, cruise liners and other vehicles,all of which cannot be listed here. Modern development of road, rail, air, sea and river transport depends on technical modernization of vehicles. There are different forms of transport, and various relevant transport contracts:

- contract of carriage of passengers by road
- contract of carriage of passengers by rail
- contract of carriage of passengers by air
- contract of carriage of passengers by sea and inland waterways

To create an environment to conduct modern domestic and international transport, Serbia has ratified almost all significant international conventions in the field of transport. We have created a modern transport legislation, codified by transport branches and international in its character. It is understandable why international conventions and regulations are present in domestic transport law: it is part of a wider transport community within which it operates. It is necessary to be included in a wider community, especially the transport law community, and be aware of the regulations enforced in other countries, but it also important to always underline the international origin of the provisions of transport law (Knežević, 2012).

The common domestic source of law for all transport contracts is the Law on Obligations (The Official Gazette of the Socialist Federal Republic of Yugoslavia, 29/78). Subsidiary application of general sources of law in transport is applicable only when a

given institute of transport law is not fully but only partially regulated by a specific law. It is not possible to provide a unified legal solution for all transport contracts because every transport form is specific. The existence of separate laws for individual transport branches means that these laws behave as *lex specialis*, i.e. they have priority over the Law on Obligations, which is applicable to all transport forms if there is no separate law for an individual transport branch.

Every form of passenger transport contract has its special interior, or domestic and international sources. Domestic sources for passenger transport contracts according to the transport type are as follows: the Law on Road Transport Contracts (Službeni list SRJ, 26/95), the Law on Road Passenger Transport (Službeni glasnik RS, 38/2015), the Law on Rail Transport Contracts (Službeni glasnik RS, 38/2015), the Law on Obligations and Ownership in Air Transport (Sluzbeni glasnik RS, 87/2011, 66/2015), the Law on Shipping (Službeni glasnik RS, 96/2015).

The international sources of law for contracts of passenger carriage according to the transport branch are the ratified international conventions.

The international passenger transport by road is regulated by the Convention on the Contract for the International Carriage of Passengers and Luggage by Road, signed in Geneva on March 1st 1973 (The Official Gazette of Socialist Federal Republic of Yugoslavia, 8/77) and the Convention on the Contract for the International Carriage of Goods, signed on May 19th 1956 (The Official Gazette of People's Federal Republic of Yugoslavia, 8/77). Good business practice also plays a very important role in everyday business conduct.

The international passenger transport by rail is regulated by the Convention Concerning International Carriage by Rail (COTIF), (The Official Gazette of Socialist Federal Republic of Yugoslavia, 8/1984), enacted in 1980, in the form of Appendix A to Unified Rules of CIV (The Official Gazette of Socialist Federal Republic of Yugoslavia, International Contracts, 8/1984), which present part of the COTIF Convention (Đurđev, 2016).

The Convention aimed to establish a unique legal system for the carriage of passengers and goods in direct international transport between the convention member countries. The Convention Concerning International Carriage by Rail, COTIF, was amended by the Vilnius Protocol in 1999 (Službeni glasnik RS, 102/07).

The European Union accepted the COTIF Convention in 2011, so that the Convention became part of acquis communautaire. Apart from the Convention, the source of European law regulating carriage of passengers is the Regulation of the European Parliament and of the Council on Rail Passengers' Rights and Obligations (the EU Official Gazette 315/14). Since COTIF Convention and the Regulation the EU Parliament and of the Council pertain to the same area, it is important to determine which of the two sources of law has greater legal strength and priority when regulating the same issue.

It is generally assumed that the international convention shall be applied first, as expressly stated in the Regulation (Đurđev, 2009). The Regulation also resolves issues not mentioned in the COTIF Convention, such as the additional rights of the passengers, strengthening passenger rights through increased availability of information pertaining to transport services and so on. The Regulation establishes rules as regards the information to be provided by railway undertakings, the conclusion of transport contracts, the issuing of tickets and the implementation of a computerised information system, the liability of

railway undertakings and their insurance obligations for passengers and their luggage, the obligation of railway undertakings to passengers in cases of delay, the definition and monitoring of service quality standards, the management of risks to the personal security of passengers, and the protection of and assistance to disabled persons with reduced mobility travelling by rail (Damnjanović, 2011).

The Regulation gives more rights to passengers in comparison to the solutions of the international convention. Colliding solutions are inadmissible in cogent legal norms of the Convention. From the passengers' point of view, the application of acquis communautaire in recommendable. The Regulation strengthens the rights of railroad passengers in order to increase the protection of passengers as consumers. In this manner, it improves the position of passengers, but also increases the competitiveness of railroad transport in relation to other transport branches. It regulates in detail the liability of undertakings in case of passenger death or injury, the passengers' rights in case of delay, as well as protection of disabled persons and assistance provided for them. It deals with passenger rights in case of delay, interruption and cancellation and so on.

The international passenger transport by see is regulated by the Convention Relating to the Carriage of Passengers and Their Luggage by Sea, the so-called Athens Convention from 1974 (Službeni glasnik RS, 13/2010-48). The Convention relating to the limitation of the liability of owners of inland navigation vessels (CLN) signed in Geneva in 1973, and developed by the Institute for Unification of International Private Law in Rome (UNIDROIT), regulates the international carriage of passengers by inland waterways. International carriage of passengers by air is regulated by the conventions which also regulate the carriage of baggage and cargo: the Montreal Convention (Službeni glasnik RS, 38/2009), the Warsaw Convention (Službeni glasnik Kraljevine Jugoslavije, 124/31), the Hague Protocol (Službeni list FNRJ – International contracts and other agreements, 6/59), the Guadalajara Convention (Službeni list SFRJ – International contracts, 3/78), Guatemala Protocol (Službeni glasnik RS, 38/2009). The Legal board of ICAO proposed the amended text of the Warsaw Convention on the diplomatic conference of ICAO in Guatemala in 1971. The so-called Guatemala Protocol amends certain provisions of the Warsaw Convention and the Hague Protocol by introducing the objective liability of the carrier in case of passenger death and injury, as well as in case of baggage damage.

By introducing the Warsaw and Montreal conventions, the international community attempted to unify the private law provisions regulating the international carriage by air and to achieve higher legal certainty for passengers using air transport. According to the convention, the passenger is entitled to compensation in case of death or physical injury caused by the air crash. This pertains to visible damage caused by air traffic accidents. But, what of the invisible damage caused by an air crash? To this question the answer is somewhat more complex (Radumilo, 2017).

Passenger carriage contract

The Law on Obligation, section 1 of Article 648, defines carriage contracts as contracts which oblige one party – the carrier to deliver the other party – a passenger from the place of departure to the place of destination, while the passenger is obliged to pay the compensation – the fare. The contract of carriage thus obliges the carrier to

transport the passenger to a destination, while the passenger is obliged to pay for the service. The definitions of the contract of carriage which can be found in legal literature specify that this is, according to its legal nature and function, a legal act regulating a concrete legal relationship between definite persons (Goode, 2017). The persons are invariably the carrier as the one side, and the passenger as the other contractual party. It defines the contractual obligation of the carrier to transport the passenger from one place to another, that is from the place of departure to the place of destination, providing the adequate transport and a seat in a vehicle, and the contractual obligation of the passenger to pay the appropriate price as compensation – fare (Trajković, 1985).

The contract of carriage by rail obliges the undertakings to deliver the passenger from departure to destination station, while the passengers are obliged to compensate undertakings for the cost of transport. The undertakings are obliged to transport the passenger to the destination station by means of vehicles of the arranged type and category as specified in timetables and to provide necessary comfort depending on the train type and journey length. The carrier is obliged to provide, when arranged, the designated seat in a specified vehicle, as well as additional services.

The contract of carriage depending on the vehicle type can be defined as the contract of carriage according to transport branches. Depending on the respective locations of the place of departure and the place of destination (whether they are in the same or different states) we differentiate between domestic and international passenger carriage.

The contract on passenger carriage by train is international when it involves transporting passengers from abroad to Serbia and vice versa, as well as when it involves transporting passengers from abroad to another country via Serbian territory. Domestic passenger transport by rail is defined as passenger carriage which begins and ends within the territory of our country. Domestic law also defines international carriage of passengers as transport of passengers from abroad to Serbia and from Serbia abroad, including the carriage of passengers from abroad to another country via Serbian territory.

The contract onpassenger carriage by road pertains to domestic transport – transport performed by a domestic carrier between places within the territory of our country.

For a contract of carriage to have international character in road and rail transport, the carriage must involve crossing at least one state border. However, there is the question of the relationship between international and domestic carriage on EU territory, especially when it involves crossing member state borders.

The contract on passenger carriage by air is international when the place of departure and the place of destination are located in different countries, or when they are in the same country, but involve landing in the territory of another country.

The character of the contract of carriage by sea and inland waterways is determined by whether the ports of departures and destination are located in one or more states. In the former case, it is domestic, in the latter – international.

The contract of passenger carriage is concluded between two contractual parties: the carrier and the passenger. The carrier is predominantly an enterprise conducting transport. For that reason, general terms of conduct must be publicly known. The carrier can also be some other person – any person contractually bound to deliver a passenger for compensation. If transport is free of compensation, the carrier loses its legal rights and obligations.

The passenger is the person being transported from one place to the other according to the contract of carriage. The right to transport is acquired by concluding the contract of carriage. Thus, the person who has the contractual right to transport is the passenger. The passenger is defined as natural person who, on account of the contract of carriage or another valid document, occupies the transportation vehicle, is on his/her way in or out of the transportation vehicle, as well as the person who accompanies a vehicle or livestock being transported on account of the contract of carriage for goods (sea shipping or inland waterway shipping).

However, instead of the passenger, the contract of carriagecan also be concludedwith the carrier by a third person (most frequently the travel agency). In that case, instead of the passenger, the other contractual party is the ordering party. In such cases, the contract of carriageof passengers is concluded between the tourist agency and the carrier, where the travel agency is the mediator or travel organizer.

The contract of carriage need not be concluded in writing. The contract of carriage is informal, so that the ticket issued to the passenger by the carrier has the character of legitimization paper rather than the contract of carriage. In addition to informal contracts onpassenger carriage, there are formal contract onpassenger carriage by air when one contractual party is the transport ordering party which concludes the contract of carriage instead of the passenger. Such contracts are concluded in writing.

The ticked is proof that the contract onpassenger carriage is concluded, although the existence of the contract of carriage can also be proven by other means, bearing in mind that the ticket presents a stronger evidence.

In carriage by air the ticket is issued to a specific name, while in carriage by rail and by road tickets are issued to bearer. In sea and inland waterway shipping tickets can be issued either to the name or to bearer.

Passenger and carrier rights and obligations against the backdrop of modern-world challenges

Passenger carriage by rail currently displays certain specificities and trends which will prove to be advantageous in comparison to other branches of passenger carriage. As mentioned before, until recently travelling by train in Serbia meant an adventurous feat involving an outdated, slow and uneconomical journey. It is time Serbia cast aside such unattractive legacy of passenger carriage by rail. Recent developments have revealed advantages of rail transport. Hazards involved in air travel, shipping and carriage by road, where confined spaces of the vehicles present a risk factor for passenger health, make carriage by rail a much more rational solution. To meet the challenges of the contemporary world, we attempted to single out some obligations and rights of carriers and passengers by rail, and to identify specificities and possible shortcomings in comparison to other forms of transport.

The carrier is obliged to deliver the passenger safely to the place of destination at specified time and according to the arranged deadline, by means of arranged vehicle and respecting the timetable, as specified in general terms and conditions of carrier conduct or in the contract of carriage. Before the transport has begun, the carrier shall provide

information regarding the conditions of carriage, and admit the interested party at the beginning of transport. How the ticket will be issued depends on the transportation type, as explained above. The basic obligation of the carrier is to deliver the passenger safely and on time. In carriage by air, the carrier is obliged to pay penalties if failing to observe the contract.

From the point of view of passenger health hazards, some carriers' obligations are of particular importance. The obligation of the carrier to admit any interested person on board is especially prominent when we are dealing with underresearched diseases. How shall the carrier meet this obligation when anyone can be a potential spreader of disease, and when they can be denied transport in case of random sampling?

According to the Law on Obligation, the carrier is obliged to admit anyone meeting the conditions specified in general terms and conditions. If the carrier's vehicle is insufficient to accommodate all interested persons, the priority is given to persons specified in special legal acts, to those who demanded transport first and, in case of simultaneous demands, to those who travel longer distances.

Since our country is striving to improve and develop passenger transport by train, the legal effect of such contracts is given special attention. The carrier by train and the passenger are contractual parties for contract of carriage informally concluded by the purchase of ticket. The contract of carriage obliges the carrier to deliver the passenger from the station of departure to the station of destination using the type and category of vehicle announced in the timetable and providing the comfort deemed necessary for the type of vehicle and the length of travel. The carrier is obliged to deliver the passenger to the destination. The carrier is obliged to provide the designated seat and additional service for the passenger when specially arranged.

In carriage by rail, the contract of carriage can be concluded with a person who is suffering or suspected to be suffering from a contagious disease only if the conditions defined in the terms of service are met.

If the passenger develops symptoms of one of the contagious diseases specified in the terms of service, the carrier is obliged to respect the stipulations and deliver the passenger to the nearest place where they can get medical assistance.

The carrier by train has the right to refuse to admit the person who if there are grounds for suspicion that the person will prevent the carrier from meeting the provisions of the contract of carriage. This pertains to persons under the influence of alcohol or drugs, persons of indecent behavior or those who do not observe the law. In such cases, the carrier has the right to remove without reimbursement anyone who disturbs other passengers or disobeys the public order regulations.

One may ask whether persons business practice will result in spreaders of disease being added to this list. In our opinion, although such persons may prevent the carrier from meeting the contractual obligations to other passengers, they should remain outside the scope of persons who may be denied carriage. What are the carrier's obligations in case of sudden passenger illness, when the cause of the disease is unknown is the question arising from the novel circumstances in our everyday lives.

Another question pertains to whether the general terms and conditions of transport will become more encompassing or whether this issue will be resolved outside of the carriers' mandate regardless of the fact that the risk is located within their vehicles during the implementation of the contract of carriage to which they are a contractual party. It is

our opinion that carriers can avoid insoluble situations by providing more encompassing information to passengers before and during the transport. The carriers' obligation is to inform the passenger of the general terms and conditions which are part of the contract before the transport and provide information regarding the timetable, the fastest transport mode and the lowest price. There is also special information regarding additional rights of disabled persons in terms of adequate access and space. Additionally, they provide information on whether there is bicycle storageroom, which first and second class seats are available, whether there is room in sleeping cars, which circumstances may result in delays or interruptions, which services are provided on board and passengers' right to complain. During the transport, they provide information regarding the services on the train, announce next stop and possible delays. Information on passenger safety and security during transport is of special importance. This carriers' obligation when there is a potential disease spreader means that carriers will react as a contractual party in the contract of carriage.

The passenger has the obligation to purchase the ticket and pay the fare in all transport modes. The passenger is obliged to purchase the train ticket and pay the fare before the transport begins.

If there is no ticket office in the place of departure, the passenger shall purchase the ticket on the train. The carrier is obliged to make it possible for the passenger to purchase the train ticket on the train, unless it is made impossible due to reservations and other business reasons, in which case the carrier shall inform the passenger on availability of e-tickets or other manners of purchase.

The passenger who fails to purchase the ticket in the place with the ticket office and who cannot show a valid train ticket on the train is obliged to pay the price of the fare and the additional charge determined by the carrier's terms of service.

The passenger who has entered the vehicle without purchasing the train ticket shall pay additional fare if carriers' general terms and conditions contain such a provision.

If a train passenger does not have a train ticket and refuses to pay the ticket price (with possible additional charge) the carrier has the right to remove such a passenger from transport.

The passenger's right to abandon the contract is exercised if the passenger abandons the contract before its implementation has started, while the timeframe depends on the transport mode. For example, in bus transport the passenger can abandon the transport no later than two hours before the transport begins, while the carrier has the right to keep 10% of the fare. There are special rules for cases where the passenger abandons transport because it did not start on time, when the carrier is obliged to return the fare to the passenger.

In carriage by rail, the passenger has the right to interrupt the journey while the ticket is valid, in which case the proportional unused amount of the fare will be reimbursed. The passenger has the right to abandon the contract of carriage by rail before its execution starts under the conditions announced by the carrier. If the transport does not start on time, the passenger may exercise his/her right to abandon transport and demand that the fare be fully returned. The right to interrupt the transport is specified by carriers' terms of service.

In case the transport is interrupted, whenthe passenger loses connecting train due to delay or cannot continue the transport, the passenger has the right to demand the

carrier should transport him/her to the nearest stop by the next train or in another manner determined by the carrier without additional charge. The passenger also has the right to be returned by the carrier, together with the baggage, to the station of departure without additional charge and with the full refund.

The carrier who has concluded the contract of carriage is obliged to transport the passenger and the baggage (Knežević, 2009). There are two types of baggage transport:

- Transport of baggage which the passenger has registered with the carrier
- Transport of baggage which the passenger can carry on board (hand baggage).

The carrier is obliged to transport registered baggage and the passenger by the same vehicle, or by another vehicle if the passenger's agreement is obtained. The passenger is obliged to pay additional luggage fee to the carrier who will issue a written confirmation – the luggage ticket. When it comes to passenger's personal baggage, the so-called hand baggage, the carrier shall charge no additional fees or issue tickets.

There are special carrier's responsibilities for the hand baggage. The carrier shall pay for the loss of or damage to personal luggage only if the damage is carrier's fault, as the passenger is obliged to take care of the personal baggage. For registered baggage transport the same rules apply as for the carriage of goods. This type of liability is limited.

In carriage by train there is an express provision pertaining to the obligation of the passenger to obey customs regulations pertaining to hand baggage, luggage and vehicles, including the objects on or in them, as well as those pertaining to animals. The passenger must be present during the customs inspection of these items or animals.

Conclusion

When regulating the field of passenger transport in all transport modes, domestic legislation accepts the solutions of international conventions and agreements and EU laws, which underlines Serbian dedication to EU integration. Harmonization of domestic laws is achieved through the Law on Contract of Carriage by Road, the Law on Passenger Carriage by Road, the Law on Contracts of Carriage by Rail, the Law on Obligation and Property in Carriage by Air, the Law on Shipping. The contract of carriage of passengers is the most frequent legal deal, as large numbers of citizens conclude it on a daily basis. New challenges and health risks in modern world require us to examine the basic legal aspects of the contract of carriage of passengers. The discussion of carriers' responsibilities reveals that the carrier is obliged to admit any interested person.

When carrying passengers by rail, the carrier can transport a person infected or suspected to be infected by a contagious disease only if conditions specified in the carrier's general terms and conditions of service are met. If a passenger develops symptoms of a contagious disease during transport and if the disease is listed in the carrier's terms of service, the carrier is obliged to obey the terms of service and transport the passenger to the nearest place to get the medical assistance. The economic importance of the contract of carriage is growing. As carrier services improve, so does the consumer (passenger) protection. The modern environment, both domestic and international, is fraught with new challenges and passenger health hazards. Health risk assessment will be one of the factors determining the passenger's choice of the manner in which he/she will reach his/her destination (either domestic or international).

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ЕКОНОМИКА
ISSN 0350-137X, EISSN 2334-9190, UDK 338 (497,1)
Vol. 67, april-june 2021, № 2
P. 35-46

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ORIGINAL SCIENTIFIC ARTICLE
DOI: 10.5937/ekonomika2102035K
Received: October, 29. 2020.
Accepted: January, 17. 2021.

SMEs ECOSYSTEM AND BANKING FINANCE SUPPORT IN SERBIA

Abstract

There is increasing awareness that the current liquidity crisis could lead to a solvency crisis, as many SMEs compensate declining revenues by taking on more debt, often with government support. In 2020 the level of insolvencies and bankruptcies were kept in check, the number of bankruptcies is expected to spike in 2021. This raises the question of efficiency of ecosystem, about policy approaches to support SMEs in need of finance, while not overburdening them with debt, what motivated the authors of the paper to research the banking loans as the access to external sources of finance within the SMEs ecosystem support. Also is analyzed the quality of the sub-dimensions, the legal and regulatory framework, collateralization options, credit information systems and the financial literacy. Descriptive statistical methods, as well as field and desk research, were used in the elaboration of the results. Key results confirmed that SMEs create more lucrative returns to the whole national economy in the improved access to finance if provided with better service models enabled by technology and new propositions as clients - the hypothesis of the research.

Key words: *SMEs, ecosystem, access to finance, banks, Serbia*

JEL classification: *G21, L26, M13, O16.*

ЕКОСИСТЕМ MSP И ПОДРШКА ФИНАСИРАЊА БАНАКА У СРБИЈИ

Апстракт

Јача свест о могућности да би текућа криза ликвидности могла довести до кризе солвентности, јер многа MSP надокнађују своје опадајуће приходе преузимањем већег дуга, често уз државну подршку. 2020. године ниво инсолвентности и банкрота је још било могуће контролисати, док се њихово повећање очекује у 2021. години. То поставља питање ефикасности екосистема и политика подршке MSP којима су потребна у овим околностима финансијска

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средства која их истовремено не би доводила у додатна дуговања. Ова питања су мотивисала ауторе да у раду истраже приступ спољним изворима финансирања -банкарским кредитима у оквиру екосистема подршке MSP. У раду се даље анализира квалитет других димензија, правног и регулаторног оквира, опције колатерализације, кредитног информационог система и финансијска писменост. У раду су коришћене дескриптивне статистичке методе, као и теренска и деск истраживања. Кључни резултати потврдили су да мала и средња предузећа стварају уносније приходе целој националној економији ако им се у квалитетном приступу банкарским изворима финансирања пружају и бољи модели услуга, технолошки напреднији као клијентима-што је и хипотеза овог истраживања. Скупа регулација финансијских тржишта, неразвијене шеме финансирања или гаранција које финансира држава, високи парафискални намети могли би, с друге стране, даље нарушити пословни амбијент за пословање малих и средњих предузећа.

Кључне речи: *мала и средња предузећа, екосистем подршке, приступ финансијама, банке, Србија*

Introduction

Early evidence suggests that bank lending delayed within the 2020 in many areas of the planet. In some cases, lending volumes even increased to fulfill rising demand from small businesses, as they sought to create up for revenue shortfalls by seizing more debt. Public policies getting to alleviate liquidity constraints have played a vital role during this regard. On the opposite hand, alternative financing instruments are being impacted strongly by the crisis. Specifically, there's concern that sources like early-stage equity and trade finance may dry up as a consequence of the pandemic and related containment measures. Backsliding on the diversification of SME financing instruments, if it materialises, would reverse a positive trend towards achieving a higher balance between bank lending and other financing instruments for SMEs.

Governments and central banks have taken monetary and monetary policy initiatives on an unprecedented scale. Many of the measures have aimed to produce relief to viable, but illiquid companies to limit bankruptcies. These policies were typically delivered during a very short period of your time and were receptive an outsized number of beneficiaries. Given the unexpected nature of the crisis, policy makers have demonstrated flexibility and a willingness to regulate their approaches as implementation proceeded. Continued liquidity support on the present scale entails some risks, particularly for public finances and business dynamics.

Policies going forward are likely to hunt to mitigate these risks. While support programmes are largely receptive all SMEs plagued by the crisis in its immediate aftermath, they will become more targeted to demonstrably viable firms within the next rounds of support. Support may additionally be made increasingly conditional on specific uses of funds, so as to contribute to medium- and long-term policy objectives.

Aldough, the economy of Serbia performs well within the areas of business support services, public procurement, standards and technical regulations, similarly as in their institutional and regulatory frameworks for SME political opinions, for insolvency, (Reiserer, 2019), the business environment in Serbia continues to be challenged by many factors. The regulation of economic markets which don't allow additional financing sources for SMEs under the higher conditions, the bureaucratic procedure, a non-transparent system of parafiscal charges, the high informal sector.

SMEs in Serbia have staged a gradual recovery from the financial crisis, and as they rebound are looking to speculate. SMEs companies are a awfully important sector within the Serbian economy (Vojteski et al., 2012), with high GVA creation, new jobs and exports results (Simonović et al., 2019). Because the bank lending to SMEs has been flat in recent years, in keeping with the EC Report (EC, 2018) there is room for improvement the financial ecosystem and bank lending access. Traditionally, however, banks have struggled to serve SMEs in an economically sustainable way. SME clients are typical with small levels of income and with needs that fluctuate by maturity, size and industry, and are a various group. It's suggested that leading small business banks can capture twice the most amount revenue per client, and achieve lending product adoption fourfold greater, than their competitors.

Online lenders are adept at driving SMEs demand; however, recent challenges in selling off loan portfolios to banks or investors at expected terms have exposed a weakness in their business models. There's need for leveraging their structural advantages by further digitizing and reinventing the customer experience, learning from attackers-fintech companies.

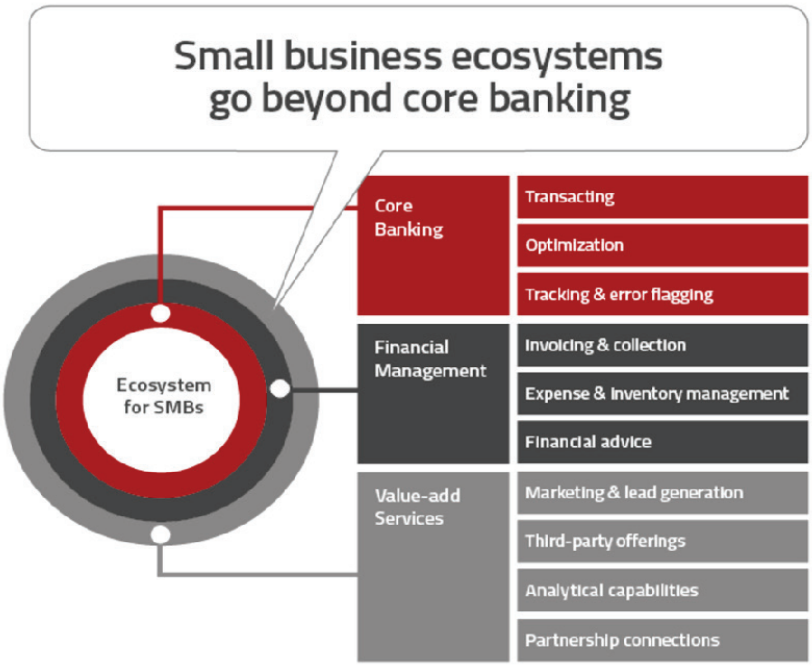
The structure of the paper consists of an introduction, the literature review, main features of the SME sector within the country and the access to finance and quality of the support ecosystem, with the conclusion and references presentation.

Literature review

The ecosystems are often connected to tech companies like fintech are, but they'll offer to banks to a novel and scalable solution to the competitive challenge. FinTech's offer traditional banking products, bat also many other business services like invoicing, payroll, tax preparation, and inventory management, and with innovative service models that increase income and reduce costs. Banks have great advantages, including rich data and SMEs as customers' trust, to expand beyond their traditional limits into adjacent businesses (Curcic, & Durkalic, 2019). during this research are outlined some ways how banks can win a big share of SME revenue pools and maximize returns using an innovative ecosystem proposition that addresses the requirements of SMEs (Grozdanic et al., 2012), describing what it takes to achieve an SME ecosystem, what's illustrated within the SMEs ecosystems beyond core banking The ecosystem framework puts particular emphasis on the legal and regulatory aspects for facilitating access to finance for SMEs in Serbia.

The macroeconomic environment, the health of the local financial market and also the overall creditworthiness of enterprises impact are a posh interaction of a range of determinants linked to areas like the access to finance for SMEs (Figure 1).

Figure 1. SME ecosystem and core banking



Source: Authors, according to Barua et al., 2019

These are the reasons for permanent improvement of the:

- Legal and regulatory framework which focuses on the legislation facilitating access to finance, including protection of creditor rights, facilitating the employment of collateral and credit information, and banking and exchange regulations, with credit rights, register, credit information bureau, banking regulations, stock market,
- Bank financing, including the lending practices of the Serbian banking market and also the availability of credit guarantees, with the banking lending practices and conditions, credit guarantee schemes, and
- Financial literacy, analyzing government efforts to market financial know-how among the businessmen and wider population, with planning, design, implementation, monitoring and evaluation (Abreu & Mendes, 2010; Atkinson, 2017).

SMEs role in Serbian economy

SMEs with 357 234 enterprises hold a dominant place making in Serbian economy, as they hold 99.8% of the total business population. A majority of 96.2% are micro-enterprises, small enterprises make 2. 96%, medium-sized enterprises 0, 66%, and 0. 15% are make up by large enterprises. Serbia has the 50.9, SMEs per inhabitant in 2018 (Serbian Report on SMEs,

MF, 2018), 66.00% of total business sector employment, value-added (10 927 million EUR) and 39.25% of Serbia's exports (Table 1).

Table 1. SME sector performance in Serbia, 2017.

	Number of enterprises		Employment		Value-added (EUR Mill.)		Exports
	No.	Share	No.	Share	No.	Share	Share
SMEs	**357 234**	**99.85%**	**873 462**	**66.00%**	**10 927**	**56.66%**	**39.25%**
Micro	344 279	96.23%	415 762	31.42%	4 241	21.99%	7.95%
Small	10 583	2. 96%	213 380	16.12%	2 963	15.36%	11.05%
Medium	2 372	0, 66%	244 320	18.46%	3 723	19.30%	11.05%
Large	521	0. 15%	449 963	34.00%	8 359	43.34%	60.75%

Source: Authors, based on World Bank Open Data (database), https://data.worldbank.org.

Looking to the sectoral distribution of SMEs in Serbia, distributive exchange bills for 27.2% of the full SME population, and 15.5% of all SMEs in Serbia perform within side the production region (Table 2). The wide variety of SMEs in each sectors has decreased, from 18.0% to 15.5% in production, and from 34.0% to 27.2% in distributive exchange. Most of SMEs perform in production, exchange region, and offerings in which can be transferring small companies (Ministry of Economy, 2018).

Methodology and findings

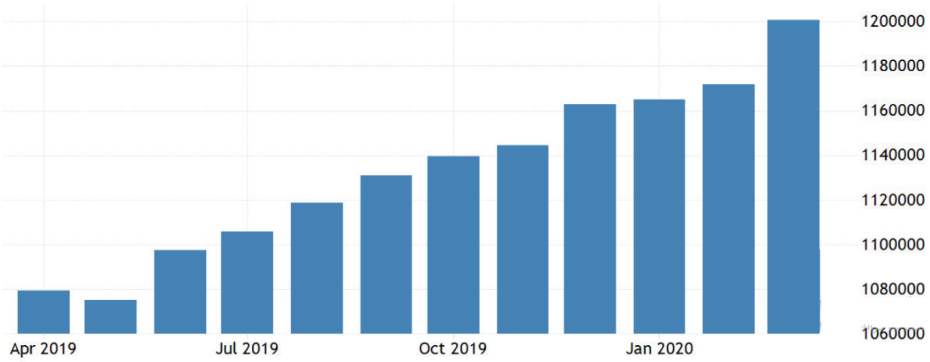
The desk and field research are base methodological tools used for the findings of the paper. Also are used outcomes of OECD, National financial institution and EBRD evaluation and files recommendations. In those analyses and data, the get admission to to finance for SMEs don't forget to be in region in in addition sub-dimensions:

- Within side the felony and regulatory frameworks are determined major improvements,
- Insurance and help to the credit score records of SMEs has been increased via way of means of credit score data systems,
- Subsidized lending to SMEs as public area interventions is found out with slowly transferring closer to credit score guarantees. According to the evaluation because the dominant supply of finance in Serbia for SMEs is financial institution lending (at 43% of GDP in 2017). Loan situations are normally much less favorable for SMEs, reflecting lenders' perceptions of the chance of default. However, systemic boundaries continue to be in Serbia. (Figure 2). According to the National Bank of Serbia Survey (2020).

New financial institution lending to SMEs multiplied via way of means of 17.2% wherein loans in overall company loans multiplied to 44.5% (the inventory of SMEs

mortgage in 2018 changed into EUR 6.5 billion). Lon-term loans amounted to 77.2 of overall SMEs loans. Lending conditions are improved. SME mortgage programs to overall wide variety of SMEs changed into 14.4%. Rejection charge (SME loans legal/ asked reduced from 28-17.0% in 2019. Utilization charge of SME loans used/ legal multiplied from ninety to 94.0% in 2019. According to the Trading economics (2020) loans to the non-public area averaged 796 828.71 RSD million (from 2004 -2020) achieving an all-time excessive of one two hundred 863 RSD million.

Figure 2. Banking loans to SMEs in Serbia, 2019-2020. (RSD Mill.)



Source: Trading economics, 2020.

SMEs in Serbia in 2017 (EC, 2017), broadly speaking have used small loans as much as 25.000 EUR (37% of a complete range used loans within side the year), 25% SMEs - as much as 100.000 EUR, and over million EUR, 9% of SMEs (Table 2).

Table 2. Serbia, banking loans to SMEs, economic forecasts, 2020-2021.

Serbia	2020	2021
Interest Rate (%)	1.50	1.25
Interbank Rate (%)	1.18	1.33
Deposit Interest Rate (%)	0.50	0.75
Lending rate (%)	2.50	3.5
Loans to Private Sector (RSD Mill)	1.50	1.25

Source: Trading economics, 2020.

The weights used for get entry to to finance size and its sub-dimensions are provided in Table 3. To a rating of 3.72 is classed financial institution lending for SMEs. Relatively excessive rating, or better from in advance years comes from the multiplied macroeconomic balance of the economic system and progressed overall performance of the Serbian banking region In contrast with the international locations. The common rating for the international locations of the Western Balkan location is 5.53.

Table 3. SMEs access to finance in Serbia, 2019 (1-5 scores)

Bank lending	Weighted average	WB average	Weights
1. Access to finance for SMEs	3.72	3.53	
1.1 Legal and regulatory framework	4.38	4.14	60%
1.1.1 Creditor rights	4.27	4.20	24%
1.1.2 Registers	4.45	4.58	24%
1.1.3 Credit information bureaus	5.00	4.55	24%
1.1.4 Banking regulations	4.50	3.79	14%
1.1.5 Stock market	3.29	2.93	14%
1.2 Bank financing	2.80	2.67	20%
1.2.1 Banking lending practices and conditions	3.12	3.61	60%
1.2.2 Credit guarantee schemes	2.33	2.30	40%
1.3 Financial literacy	2.42	2.19	5%

Source: OECD, 2019.

Discussion

Bank lending is still the dominant supply of finance for SMEs in Serbia, specializing in SME lending. Systemic troubles stay, as mortgage situations are normally much less favorable for SMEs, reflecting perceived dangers with the aid of using creditors approximately their potential to repay. Government is slowly moving in the direction of greater commercially aligned solutions, however the sponsored lending remains an frequently shape of Public zone interventions. Legal and regulatory framework regarding economic troubles place well-advanced in Serbia. The framework for secured creditors, such as out-of-courtroom docket settlements and courtroom docket strategies seem to have emerge as greater green in current age.

The concrete felony adjustments are but to be visible to boost up enforcement procedures, which stay a bottleneck. Overall banking rules of Serbian are consistent with guidelines of Basel II and Basel III. Legislation and management framework as authorities' coverage response, have a variety of help activities, just like the Strategy for SMEs development improvement. Many authorities' institutions, are worried in the porogramme relate each to economic help: loans, subsidies, improvement of exports help in coming into deliver chains, and non-economic help- education, requalification, expert and consulting assistance.

The part of the assisting SME surroundings are in addition measures:

- The application for help start ups is carried out with the aid of using the Ministry of Economy in cooperation with the improvement Fund of the Republic of Serbia, with overall to be had offers to the belief quantity to

RSD two hundred millions. Funds below this programme may be used for: upgrade, buy of equipment, everlasting operating capital,

- Programme for captivating entrepreneurship thru help investments meant for buy, of recent or used manufacturing equipment, software, production, everlasting operating capital , as much as 20% of the overall funding carried out with the aid of using the Ministry of Economy in cooperation with the improvement Fund of the Republic of Serbia,
- Digital transformation help programme, which is carried out with the aid of using Serbian Development Agency, to help SMEs within side the virtual transformation process, as much as 50% of the eligible expenses at the precept of reimbursement (Jevtic et al., 2020; 2014) The price range of the programme is RSD 70 million, and
- Loans ensures for micro and small felony entities for renovation of contemporary liquidity, funding loans for procurement ok production and upgrading of commercial enterprise facilities, loans of the Agency for Insurance and Financing of Exports (AOFI). The hobby within side the nearby banking device might be in addition induced giant with the aid of using this economic condition.

Foreign exchange risks can pose a specific trouble to the SMEs that are extra unhedged in opposition to them. In 2018 are prioritized overseas alternate-listed loans in new Policy Coordination Instrument Agreement among Serbia and the International Monetary Fund which excessive stage want to be decreased.

The infrastructure round credit score records is solid. A registration gadget with and the cadaster despite the fact that now no longer absolutely to be had online, has been in vicinity for numerous years, and are in large part practical and actively utilized by the nearby banking gadget. A privately run credit score records bureau has been in vicinity on the grounds that 2004, overlaying 100% of the Serbian grownup population.

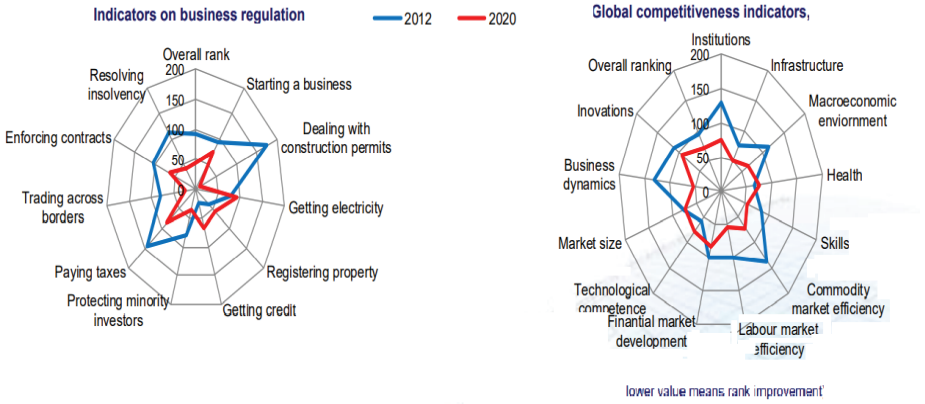
Public availability is constrained because of Serbia's specific law that calls for non-public consensus to any credit score search. In 2016 become amended the capital marketplace regulation.

The motive of the regulation become first off to reinforce capital marketplace supervision and decrease dangers of marketplace manipulation, too. However, in addition cognizance constructing is wanted approximately the advantages of capital markets finance, which include a South-East Europe link, to absolutely take advantage of capital marketplace finance possibilities for SMEs. High degrees of non-appearing loans (NPLs) have additionally been decreased systemically.

A plan on NPL (supported through the EBRD, IFC, IMF and the WB), is actively enforcing in Serbia. NPL degrees have fallen (from 20% in 2015 to under 10% in 2017). Measures for nearby foreign money lending growing apprehend the dimerization approach awareness with the National Bank of Serbia, collectively with the resilience of the Serbian monetary marketplace. Due to the persevering with erotization of loans, alternate price dangers persist, in particular for smaller businesses.

In addition is established the effect of environment law to average SMEs in Serbia overall performance for the length 2012 to 2020, through summarizing the signs of competitiveness and doing business (Figure 3).

Figure 3. The impact of ecosystem regulation to overall SMEs in Serbia performance, 2012-2020



Source: Authors according to WB, WEF data, 2020.

Conclusion

Banking finance within the SMEs ecosystem support has been researched in this paper. It may be concluded that the get entry to and wider collateralization alternatives are facilitated thru a higher prison and regulatory framework, in addition to the possibility for SMEs to construct a credit score records thru the credit score records structures which insurance expands. The enterprise surroundings in Serbia has been improved.

Public area interventions to ease SME get entry to to finance stays common. Government is slowly moving closer to extra commercially aligned answers along with credit score guarantees, and lending has slowly centred on SMEs, despite the fact that the banking area is in right shape. There isn't clean strategic method to address shortcomings on this area. In leveraging investment thru aid schemes, for SMEs might be essential now no longer to cause them to depending on persevered public finances aid, and purpose a likely risk connected with possible marketplace distortions. Systemically monitored ought to be aid programme and evaluated in opposition to overall performance indicators, to attain the ones SMEs maximum in want of aid and altered as wished (OECD, 2019).

Public area aid might be wished within side the sports of the monetary literacy ranges of SMEs development. Main pointers for the development surroundings situations for SMEs issues on:

- SMEs competitiveness development, via way of means of Government and personal area intensifying their engagement in improving regulatory situations, in reducing red tape,
- Credit assure schemes facilitation in higher get entry to to finance for SMEs,
- The in addition SMEs inclusion into worldwide cost chains and new markets open up,
- The local co-operation increasing via way of means of given the dimensions of Western Balkan economies, supplying resources - as innovation and pleasant infrastructure as a cost-green manner for SMEs to scale up past their home capacities,

- To assure performance and first-class use of public funds, a scientific assessment of aid programmes for SMEs might need to be an extended run.

Following the developments within side the digitization of the sports, virtual channels are predicted to be an an increasing number of essential approach of engagement among banks and SMEs within side the subsequent 3 to 5 years. The aspiration is extraordinarily straightforward—provide SME clients the goods they need and the Omni channel connection they prefer. Bank executives ought to try and an aspirational goal for SME unit from Serbia, with growing the financial advantages to deliver, accounting for aggressive dynamics and enterprise evolution, and shooting increase throughout all essential dimensions of the SME segment. There might be new investments to innovate alongside those dimensions.

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ЕКОНОМИКА
ISSN 0350-137X, EISSN 2334-9190, UDK 338 (497,1)
Vol. 67, april-june 2021, № 2
P. 47-57

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ORIGINAL SCIENTIFIC ARTICLE
DOI: 10.5937/ekonomika2102047B
Received: October, 24. 2020.
Accepted: January, 18. 2021.

RELATIONSHIP BETWEEN SOCIAL COMPETENCES OF MANAGER AND LEADERSHIP OUTCOMES

Abstract

In today's turbulent business environment, acquiring and developing leadership skills is one of the key challenges for managers, and emotional and social competencies are predominat among such skills. Possession of this specific set of competencies is a key factor necessary for building positive psychological climate in an organization. The subject of the paper is the analysis of social competencies of manager, particularly social awareness (empathy and organizational awareness) and relationship management (conflict management,coach and mentor, influence, inspirational leadership and teamwork), as well as the analysis of leadership outcomes manifested through perceived leadership effectiveness by the employees, employee satisfaction with immediate superiors and encouraging employees by managers to put an extra effort into doing their job. The aim of this paper is to determine the relationship between social competencies of manager and the outcomes of leadership. The research was conducted on a sample of 30 employees in 8 organizations with more than 50 employees. Standardized ESCI (Emotional and Social Competency Inventory) and MLQ (Multifactor Leadership Questionnaire) questionnaires were used for the purpose of the research. Data analysis was performed using Spearman rank correlation and standard multiple regression. SPSS 25.0 software was used for data processing. A limitation of the study is the sample size.

Key words: *managers, social competencies, leadership outcomes, employees*

JEL classification: *M12*

ПОВЕЗАНОСТ СОЦИЈАЛНИХ КОМПЕТЕНЦИЈА МЕНАЏЕРА И ИСХОДА ЛИДЕРСТВА

Апстракт

У савременим турбулентним условима пословања, стицање и развој лидерских вештина за менаџере представља један од кључних изазова, међу којима се доминантно издвајају емоционалне и социјалне компетенције. Поседовање овог

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специфичног сета компетенција представља кључни фактор неопходан за изградњу позитивне психолошке климе у организацији. Предмет рада је анализа социјалних компетенција менаџера као што су друштвена свест (емаптија и свест о организацији) и управљање односима (управљање конфликтима, усавршавање других, утицај, инспиративно лидерство и тимски рад), као и анализа исхода лидерства који се манифестују кроз перципирану ефективност лидера од стране запослених, задовољство запослених непосреднм надређеним и подстицање запослених од стране менаџера да уложе додатни труд у обављање свог посла. Циљ рада је утврђивање релација између социјалних компетенција менаџера и исхода лидерства. Истраживање је спроведено на узорку од 30 запослених у 8 организација са више од 50 запослених. За потребе истаживања коришћени су стандардизовани упитници ESCI (Emotional and Social Competency Inventory) и MLQ (Multifactor Leadership Questionnaire). Анализа података је извршена применом Спиреманове корелације и стандардне вишеструке регресије. За обраду података коришћен је софтвер СПСС 25.0. Ограничење студије представља величина узорка.

Кључне речи: *менаџери, социјалне компетенције, исходи лидерства, запослени*

Introduction

For many years, the topic of leadership has been in the center of researchers and scientists' attention. In the focus of that researches are managers. That is expected, because one of the basic management roles are interpersonal roles, which is derived from authority and relationship at the manager-employee level (Strugar-Jelača, 2018) and one of the most important of that roles is role of leader. Contemporary business conditions, characterized by a high level of uncertainty, create an increasing need for the development of specific leadership competencies. It is very important to emphasize that there is no one right leadership approach (Berber et al., 2019) and leadership should not be focused on one single position or individual, but on certain characteristics that have to be developed by managers and then by all the members of the organization (Vujić et al., 2019).

In recent years, both in theory and in practice of leadership, the importance of emotional intelligence has been increasingly emphasized. The importance of emotional intelligence as a new type of intelligence was pointed out by Salovey & Mayer (1990), and the one who popularized the concept of emotional intelligence and pointed out its importance in the sphere of leadership is Daniel Goleman (1995).

Traditional, cognitive approach to business rejected emotions in business, considering them bad and undesirable, as something that prevents rational thinking and prevents effective decision-making (Albrow, 1992). It was considered that business people should be engaged exclusively in achieving business success, i.e. profit, and managers are required to have the same approach to all the employees, not paying attention to individuality, diversity of their employees. Emotions at work, as we have already mentioned, are a sign of weakness, failure, error. Today, understanding personal emotions and those of others, as well as possessing knowledge and skills for managing emotions, is a necessary condition and an important factor for success in management positions.

The aim of this paper is to determine the relationship between social competencies of managers and the outcomes of leadership. ***Specific goals***, as components of the entire

research area, relate to identifying social competencies of managers, as well as determining the outcome of leadership in the form of perceived effectiveness, employees' satisfaction and leaders encouraging the employees to extra effort.

The paper consists of theoretical and empirical part. The theoretical part will provide an overview of the existing literature and prevailing views in this area, based on which the hypothesis will be set, and the empirical part of the paper will present the results of primary research.

Paper's theoretical foundations
The concept of emotional intelligence

The importance of emotional intelligence as a new form of intelligence was pointed out by Mayer & Salovey in 1990. Since then, this topic has been intensively researched. Mayer & Salovey suggest that emotionally intelligent people perceive emotions accurately, understand emotions and their meaning, and know how to manage their own emotions as well as those of others (Mayer et al., 2016).

The concept experienced its expansion after the publication of the book "Emotional Intelligence", by Daniel Goleman in 1995. The author defines emotional intelligence as "a set of emotional skills that allow us to choose the right way to use feelings and affective, instinctive mechanisms in interaction with other people, as well as to understand and improve our own personality" (Goleman, 1997, 317). The same author introduced the concept of emotional intelligence into the sphere of leadership and pointed out the importance of emotional intelligence for a leader (1998).

Emotional intelligence contributes to positive attitudes, behavior and outcomes, implies the application of emotional skills to achieve the desired behavior. In line with the above, it is an essential quality of a successful manager (Cooper, 1997; Goleman, 1998), an important component of communication within the team (Yost and Tucker, 2000), as well as one of the key factors contributing to better employee performance and commitment (Abraham, 1999). Emotional intelligence has become extremely important as a measure to identify potentially effective leaders, and a means to develop necessary leadership skills (Palmer et al., 2001).

In his research, Daniel Goleman discovered that intelligence (IQ) and technical skills are necessary for success, but they are not enough. Comparing technical skills, intelligence, and emotional intelligence led him to conclude that emotional intelligence (EI) is twice as important for jobs at all levels. David McLeland, in his 1996 study conducted on an example of a global food and beverage company, concluded that the best-positioned leaders had a high degree of emotional intelligence (Goleman, 2004). The same author, in a study conducted in 1998, concluded that there is a certain limit to emotional competencies that makes it possible to distinguish exceptional managers from the average ones (McClelland, 1998).

There are three key approaches to emotional intelligence in literature: ***Emotional intelligence is an ability*** (Mayer et al, 1997), they believe that emotional intelligence is a form of social intelligence that includes the ability to perceive one's own and others' feelings and emotions and use this information in guiding their own thinking and behavior (Mayer

and Salovey, 1997, p.27); ***Emotional intelligence is a dimension of personality*** (Petrides & Furnham, 2000; Petrides et al. 2007) The authors Petrides & Furnham (2000) were the first to propose a distinction between emotional intelligence as ability and as personality characteristic. Unlike the ability approach, which is related to real abilities, emotional intelligence as a dimension of personality should be explored within the framework of personality, more precisely, it implies self-reporting (Petrides & Furnham, 2001). ***Emotional intelligence is a competence: it permeates different psychological domains - a mixed model*** (Goleman; 1995; Bar-On, 1997; Goleman et al., 2004; Boyatzis, 2011) which, besides abilities, also includes non-cognitive features.

Emotional and social competencies

The notion of emotional intelligence as a set of emotional and social competencies rests on a mixed model developed by Goleman (1995), which was later perfected. Emotional intelligence consists of 12 competencies that are grouped into four clusters: self-awareness, self-management, social awareness, and relationship management. The first two clusters represent emotional competencies, and the other two represent social competencies (Boyatzis, 2019). Emotional competencies are the ability to recognize and understand one's own emotions, and social competencies are the ability to recognize and understand the emotions of others, as well as using such information in order to achieve superior performance (Emmerling & Boyatzis, 2012).

The instrument widely used to test emotional intelligence (emotional and social competencies), and that was used in this research is a standardized ESCI questionnaire (Emotional and Social Competences Inventory), developed by the consulting organization Hay Group in collaboration with Goleman & Boyatzis (Hay Group, 2011).

The importance of emotional and social competencies is indicated by Cheriss (2000) who states that 2/3 of the competencies associated with superior performance in the workplace are emotional and social in nature (Cheriss in Seal et al., 2006). Research that focused only on social competencies is rare, despite the obvious importance of these skills in everyday business involving social interactions, which is especially important when it comes to leadership and the relationship between managers and employees in organizations (Riggio, 2010). The importance of possessing social skills for a leader in a modern dynamic business environment is very high. According to Strukan et al. (2019) leadership and change are synonyms. Leaders are increasingly turning to developing high-quality interpersonal relations between the leaders and employees (Strukan et al., 2019), therefore, from authors' point of view, the social skills of leaders are the key factor for achieving good relations between leaders and employees and a necessary condition for creating a climate in which changes are accepted.

Leadership outcomes

Leadership outcomes are presented through effectiveness, extra effort and satisfaction. Extra effort is presented in the context of leaders' ability to strengthen the desire of their followers to be successful and willing to make an extra effort to achieve more than they think they can and expect, or to realize their potential (Bass & Avolio,

1997). When it comes to effectiveness, it should be emphasized that the perception of leaders by followers is important, i.e. whether followers perceive their superiors as effective in achieving goals and representing their interests before a higher authority, as well as whether employees perceive their work group as effective (Bass & Avolio, 1997; Jelača et al., 2016). Satisfaction is reflected in employees' satisfaction with their superiors and their management methods (Bass & Avolio, 1997).

In previous research, transformational leaders were mostly associated with positive leadership outcomes (Wang et al., 2011; Sadeghi & Pihie, 2012; Dabke, 2016). Contributing to this, transformational leaders strive to raise the level of awareness of their followers, promoting moral values and inclusion of emotions, as well as promoting goals that include freedom, justice, equality (Tasić et al., 2020). If managers want to become a transformational leaders, they must be engaged with followers to exert influence, consider employee needs, coach, inspire, and stimulate (Rubin et al., 2005). In line with previous mentioned, many researches show that coaching has an impact on satisfaction with manager (Szabó et al., 2019), than trust in the leader correlate positively with satisfaction with leader (Bartram & Casimir, 2007). According to Webb (2008) followers are more satisfied and motivated by leaders who possess great energy, high levels of self-confidence, strong beliefs and ideals. Such leaders, exept they ecourage higher level of satisfaction of followers, they are perceived as effective and motivate employees to make additional efforts to realize their potential.

The instrument most used to examine leadership outcomes, and used in this study as well, is the standardized MLQ-5X questionnaire (Multifactor Leadership Questionnaire) (Bass & Avolio, 2000; Bass & Avolio, 2004).

Emotional intelligence and leadership outcomes

Researches that has focused on relationship between emotional intelligence (emotional and social competencies) and leadership outcomes (effectiveness, extra effort, and satisfaction) exist, but not in large number. The results of a study conducted on a sample of 110 top managers have shown that there is a statistically significant positive strong relationship between emotional intelligence and leadership outcomes (extra effort, effectiveness and satisfaction), with the strongest relationship proven between the ability to identify and understand the emotions of others and leadership outcomes (Gardner, 2002). Schaap & Coetzee (2005) demonstrated positive relationships between emotional intelligence and all three leadership outcomes in a sample of 100 managers.

The authors more often linked emotional intelligence and one of the outcomes of leadership, and most often it was the effectiveness of leaders, and research has proven a positive link between emotional intelligence and leaders' effectiveness (Kerr et al., 2006; Nabih et al., 2016). Effective leaders, in addition to traditional competencies, also have a high level of emotional intelligence. Van Oosten found that there is a positive impact of emotional competencies on leader effectiveness (Van Oosten, 2013), and Guerin et al. found that social skills are predictors of leader effectiveness (Guerin et al., 2011).

Based on the previous review of the literature and the prevailing views, the following hypothesis was set:

H1: Social competencies of manager are positively related to leadership outcomes (extra effort, effectiveness, and satisfaction).

Methodology

The research was conducted at the beginning of 2020 on a sample of 30 employees from 8 organizations that have more than 50 employees. Out of the total number of employees, 67% work in the private sector and 33% in the public sector. 19 respondents were males and 11 females. The largest number of respondents (66%) belonged to the age group 25-44 years. When it comes to education, 8 have completed High school, 4 three-year Vocational studies, 12 four-year Academic studies and 6 respondants completed Master studies.

The questionnaires used for the research are ESCI (Emotional and Social Competency Inventory) (Hay Group, 2011) and MLQ Questionnaire (Multifactor Leadership Questionnaire) (Avolio & Bass, 2004). The standardized ESCI questionnaire consists of 68 questions, measuring leaders' emotional intelligence (social and emotional competencies). The issues were grouped into four clusters: self-awareness, self-management, social awareness, and relationship management. The first two clusters relate to emotional competencies and the other two to social competencies (Boyatzis, 2019, p. 10). Out of a total of 68 questions, 38 measure leaders' social competencies, which is the focus of the research. Nine questions from the standardized MLQ questionnaire were used to measure leadership outcomes. A five-point Likert scale was used to evaluate all the responses.

Analysis of research results

In the first step, reliability of the measurement scales used in the research was checked, and it was determined that the Cronbach's alpha coefficient is 0.905 (social competencies), i.e. 0.935 (leadership outcomes), which indicates that the measurement scales are reliable and appropriate for measuring social competencies of manager and leadership outcome.

Table 1: Spearman correlation (N=30)

			M	SD	Social competences of manager	Leadership outcomes
Social competences of manager	**rho**		3.6494	.3990	1.000	.619**
	p				-.	**.000**
Leadership outcomes	**rho**		3.8139	.8902	.619**	1.000
	p				**.000**	-.

Source: Author's calculation

Based on the results shown in Table 1, it can be concluded that there is a strong positive correlation between managers' social competencies (social awareness and

relationship management) and leadership outcomes (r = 0.619; n = 30; p = 0.000) which are reflected in positively perceived effectiveness of the leader by the employees, employees' satisfaction with the immediate superior and his/her leadership style and the encouragement of the subordinates by the managers to invest an additional effort into performing their work.

The authors used regression analysis to examine in more details the influence of the independent variable, i.e. social competencies of manager on the dependent variable, i.e. leadership outcomes.

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.724[a]	.524	.507	.625042623106816	.524	30.825	1	28	.000

Source: Author's calculation

Table 3: Anova test for regression model

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.043	1	12.043	30.825	.000[b]
	Residual	10.939	28	.391		
	Total	22.982	29			
a. Dependent Variable: Ledership outcomes b. Predictors: (Constant), Social comeptences of manager						

Source: Author's calculation

Based on Table 2 and Table 3, it can be concluded that the model is statistically significant (F = 30.825; Df = 1.28; p <0.01,), and that the independent variable (social competence) explains 52.4% of the variance of the dependent variable, i.e. leadership outcomes.

Table 4: Regression Model Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
		B	Std. Error	Beta			
1	(Constant)	-2.080	1.068		-1.948	.061	
	AVR_SC	1.615	.291	.724	5.552	.000	1.000

Source: Author's calculation

Based on Table 4, which shows the coefficients of the regression model, the following conclusions can be drawn: the assumption of no multilinearity is not compromised, since the factor of increasing variance (VIF = 1) is less than 10 (Pallant, 2017, p. 155), or less than 3 (Hair et al., 2019, p. 11). The results show that managers' social competencies have a statistically significant positive predictive effect (V = 0.724; p = 0.000) on leadership outcomes. Possession of a higher level of social competencies (social awareness and relationship management) is associated with better leadership outcomes reflected in positively perceived leaders' effectiveness, employees' satisfaction with the leaders and the leaders' ability to encourage employees to put an extra effort into doing their job.

Based on the presented data, the conclusion is drawn that the hypothesis ***„Social competenciesof manager are positively related to leadership outcomes (extra effort, effectiveness, and satisfaction)"*** was confirmed.

Conclusion

In modern business conditions, managers are expected to, in addition to the necessary professional competencies, also possess a certain level of emotional intelligence. A manager who has emotional and social competencies behaves like a leader and has the ability to influence his employees, by creating an adequate work climate, a climate of mutual trust that motivates employees to progress, develop, learn, believe in themselves, and achieve more than they think they could.

Emotionally intelligent managers or leaders create such an organizational climate that encourages the employees to put an extra effort and realize their potential. In a work atmosphere in which employees are satisfied and perceive their superiors as effective leaders, a higher degree of work engagement is encouraged, which is extremely important today, and will become even more important in the future.

Based on the available data and analysis using the above quantitative procedures, it can be concluded that there is a statistically significant cerrelation between the level of managers' social competencies and leadership outcomes. Emotional intelligence, especially social competencies, represents an extremely important factor that contributes to superior leadership outcomes.

Contribution of this research is reflected in connecting emotional intelligence (social competencies) and the outcome of leadership, which has been poorly researched so far, especially when it comes to our country. The limitation of the study is the size of the sample, so the authors' proposal for future research is to increase the sample and to examine whether emotional or social competencies have a greater impact on leadership outcomes.

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ЕКОНОМИКА
ISSN 0350-137X, EISSN 2334-9190, UDK 338 (497,1)
Vol. 67, april-june 2021, № 2
P. 59-68

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SCIENTIFIC REVIEW ARTICLE
DOI: 10.5937/ekonomika2102059R
Received: November, 21. 2020.
Accepted: February, 08. 2021.

ECONOMIC IMPACT OF THE CORONAVIRUS PANDEMIC ON AIR TRAFFIC

Abstract

The coronavirus pandemic is an unprecedented event in modern history, not only of aviation, but also of humanity. The negative consequences of the pandemic are not only related to the suspension of flights and the inability to transport passengers, but also have a great impact on other industries, such as the production of aircraft, systems and engines, tourism, the food industry, etc. The suspension of flights has led to many times lower revenues than planned, the dismissal of a large number of employees in this industry, as well as the cancellation of new airplanes ordered. Also, the prescribed health care measures that airlines must apply will affect a smaller number of passengers on planes, which means that each flight will be less cost-effective. Faced with large losses, airlines must organize in order to achieve maximum efficiency and a partial return to the levels of flying and transportation of people and goods that were achieved during 2019. The paper analyses the state and importance of the global aviation industry, the impact of the pandemic on business results and solving the problems of airlines.

***Key words**: airlines, pandemic, employment, revenues, financial assistance*

***JEL classification:** F66, H12, I15, L93, Z32*

ЕКОНОМСКИ УТИЦАЈ ПАНДЕМИЈЕ КОРОНА ВИРУСА НА ВАЗДУШНИ САОБРАЋАЈ

Апстракт

Пандемија корона вируса је догађај без преседана у савременој историји, не само ваздухопловства, него и човечанства. Негативне последице пандемије не односе се само на обуставу летења и немогућност превоза путника, него имају велики утицај на остале индустрије, као што су производња авиона, система и мотора, туризам, прехрамбена индустрија итд. Обустава летења довела је до вишеструко мањих прихода од планираних, отпуштања великог броја запослених у овој индустрији, као и отказивања наручених нових авиона. Такође, прописане

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мере здравствене заштите које авиокомпаније морају да примењују одразиће се на мањи број путника у авионима, што значи да ће сваки лет бити мање исплатив. Суочене са великим губицима, авиокомпаније морају да се организују у циљу остварења што веће ефективности и делимичног повратка на нивое летења и превоза људи и роба који су остварени током 2019. године. У раду је анализирано стање и значај глобалне авиоиндустрије, утицај пандемије на пословне резултате и решавање проблема авиокомпанија.

Кључне речи: *авиокомпаније, пандемија, запосленост, приходи, финансијска помоћ*

Introduction

The economic history of humanity has always been greatly influenced by natural disasters, and scientific and economic progress and the strengthening of the role of the state over the past two or three centuries have increased its ability to cope with droughts, floods, volcanic eruptions, earthquakes, etc. However, humanity's success in dealing with global natural disasters, such as climate change and pandemics, has so far been modest. The modest results are largely due to the fact that the powers of humanity in many areas are still quite limited. The coronavirus pandemic has caused major health problems worldwide. Starting in China, the epidemic spread very quickly to other parts of the world, causing the infection of more than five million and the death of more than 300,000 people worldwide (WHO, 2020). In this regard, in mid-March, most countries introduced emergency measures, which included closing state borders, banning international traffic and restricting the movement of people, temporary cessation of work and complete cessation of production in factories, implementation of human health protection measures, etc. The pandemic has negatively affected all industries, regardless of whether they are manufacturing or service, and among the most affected are certainly airlines and air transport. Almost overnight, airlines faced declining interest in travel, a flight ban and the landing of aircraft fleets. After more than two months of suspension, losses in air traffic, along with aircraft manufacturers, airports, air traffic control agencies, travel agencies and hoteliers, are estimated at hundreds of billions of dollars. In that regard, the largest number of airlines laid off thousands of employees. A large number of smaller airlines are on the verge of bankruptcy, and the forecasts for further business are very devastating. Some analysts predict that the situation will not improve by the end of 2020, and even more pessimistic, that during 2021, the decline in income and return to the level of 2019 will be aggravated and accompanied by great challenges. However, no matter how much the airlines are in the focus of public interest, they are not affected more than other modes of transport, such as bus, rail, ship or tourism, catering, services, and a number of other industries.

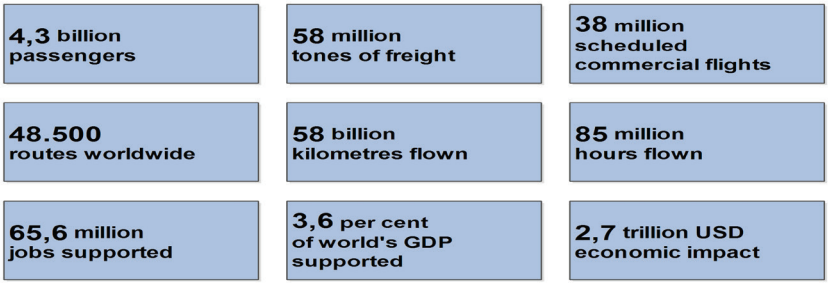
The state of global air traffic

With over 1,400 airlines that have 31,717 aircraft and serve 3,900 airports thanks to the support of 173 air traffic control service providers, the civil aviation sector has established

an impressive global network at the service of passengers and businesses from all over the world. Airplanes are the safest and fastest means of transportation to cross oceans and borders to connect people and foster sustainable economic growth (ICAO, 2020). The contribution of aviation to the global economy is approximately equivalent to the total GDP of the United Kingdom (IHLG, 2019).

During 2018, airlines worldwide transported about 4.3 billion passengers and 58 million tons of cargo (Figure 1). Every day, more than 100,000 flights carried nearly 12 million passengers and goods worth about $ 18 billion. Historically, air traffic has doubled every fifteen years and is growing faster than most other industries (Palmer, 2016). According to the estimates of the Air Transport Action Group (ATAG, 2019), the total economic contribution of global air traffic in 2016 amounted to 2.7 trillion dollars, which is 3.6% of world GDP. Air traffic also supports a total of 65.5 million jobs worldwide and provides 10.2 million direct jobs. Airlines, airports and air traffic control and navigation service providers directly employ about 3.5 million people. The civil aviation sector (aircraft, systems and engines) employs 1.2 million people. A further 5.6 million people are employed in other positions at airports, and 55.3 million jobs are supported indirectly, induced in tourism as well (ATAG, 2019).

Figure 1. The contribution of the global aviation industry



Source: ABBB, 2018

Measured by per capita income, aviation is a very productive industry (averaging $ 69,000 per worker per year), surpassing most other sectors. It is understood that highly qualified, trained and experienced staff is employed in air transport (ATAG, 2019).

Indirect impacts of the aviation industry include employment and economic activities generated by its suppliers: aircraft fuel suppliers, construction companies that build and maintain airport facilities, subcomponent suppliers, manufacturers of goods sold in retail facilities at airports, and a wide range of business services activities. such as call centers, information technology and accounting. Nearly 11 million indirect jobs are supported globally through the purchase of goods and the provision of services by companies in the aviation industry. These indirect trades accounted for approximately $ 638 billion in global economic activity in 2016 (ATAG, 2019).

Consumption by employees directly or indirectly in the aviation sector supports additional jobs in other sectors, such as retail, consumer goods manufacturing, and across service industries (e.g., restaurants, banks, and telecommunications providers). Nearly eight million induced jobs are supported globally, and the contribution to global economic activity is estimated at $ 454 billion (ATAG, 2019).

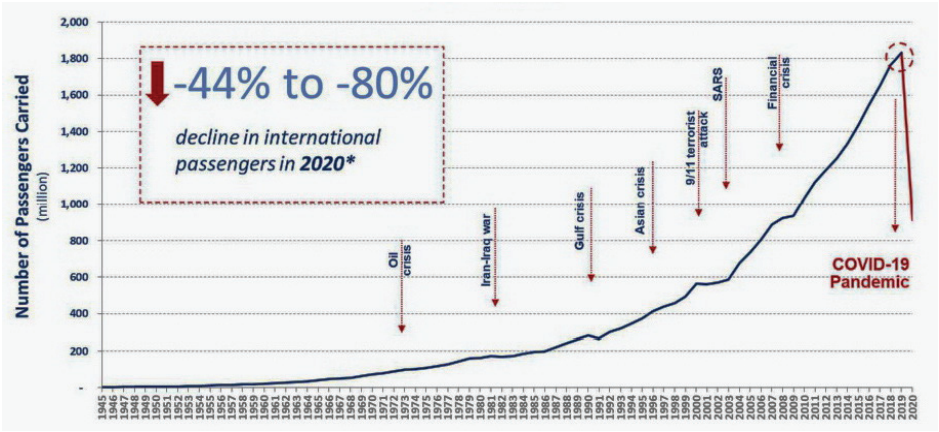
In order to fully participate in the world economy, countries need connectivity because it influences higher productivity, investment and innovation. The connectivity provided by air transport is at the heart of tourism development, as it provides significant economic benefits to all involved in the tourism value chain. Over half of the 1.4 billion tourists a year (57%) arrived at their destinations using a plane (WTO, 2019). In 2018, tourism supported 319 million direct, indirect and induced jobs worldwide and participated in global GDP with 8.8 trillion dollars (which is 10.4%). Over the next decade, tourism-related GDP is expected to grow at a rate of 3.7% per year (WTTC, 2019). Through a synergistic relationship, air transport supports nearly 37 million jobs, in tourism, contributing with approximately $ 897 billion in global GDP (ATAG, 2019).

Coronavirus pandemic and suspension of passenger air traffic

The coronavirus pandemic has caused the isolation of cities and areas, from China to North and South America. The period of isolation lasted differently, from country to country. In addition to isolating people, all activities at airports (buying and checking tickets, receiving and issuing luggage), on runways (aircraft maintenance, maintenance and repair of navigation and signaling systems and devices), in hangars, flight controls, as well as and numerous commercial spaces (consumer goods and press stores, pharmacies, restaurants, banks, parking lots).

With the declaration of the pandemic, all those advantages ceased to be relevant, and the problems related to air traffic and airline operations came to the fore. Having in mind similar problems from the past, which had an impact on the business of airlines in the world, it can be concluded that the pandemic caused an unprecedented earthquake, which is similar in effect to the Great Depression of 1929-1933. years (Figure 2). In just two months in 2020, with the suspension of flights and restriction of movement, and the introduction of isolation measures, the transport of passengers and cargo has been reduced to a minimum, practically non-existent.

Figure 2. Evolution of international passenger air traffic (1945-2020)

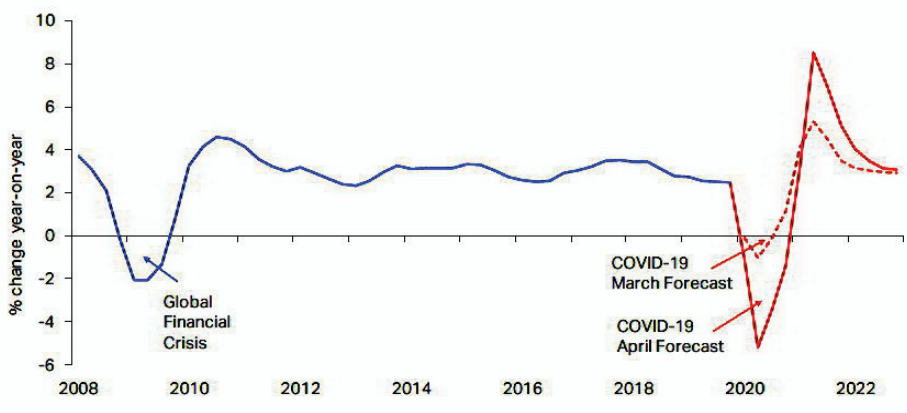


Source: Aviation Benefits Report, 2019.

During the pandemic, thousands of evacuation flights were performed and hundreds of thousands of people were transported. In the United States alone, 70,000 citizens were returned on more than 700 flights from 126 destinations. The Lufthansa group evacuated almost 90,000 people in 437 flights from 159 destinations. Air France evacuated 240,000 people. The airlines, in addition, performed thousands of cargo flights to which they delivered medical and other equipment. Evacuation flights were also performed by companies based in the region: Air Serbia, Croatia Airlines, FlyBosnia, Wizz Air, and Trade Air and Amelia. At the same time, it is clear that the countries that own their companies, Serbia, Croatia and Montenegro, had a huge advantage. They mobilized the planes of their companies and used them to the maximum, literally immediately, and to the extent necessary for evacuation and cargo flights.

Since air transport accounts for about 3.6% of global GDP, any disruption in its functioning has far-reaching global consequences. This is due to the fact that restricting the transport of people and goods inevitably leads to a drop in income, disruption of supply chains, as well as problems in the economies as a whole. In this regard, the usual practice of airlines and other actors is the dismissal of employees (temporarily or permanently), the inability to meet obligations to creditors, payment for aircraft stationing at airports, the inability to meet the raids of pilots and other staff, etc. (Berti, 2020, Busvine et al., 2020). Of course, the share of air transport in global GDP is also decreasing. As can be seen in Figure 3, global GDP growth is subject to great turbulence in times of crisis or, as in this case, pandemics of unprecedented proportions. If during the economic crisis of 2008-2009. year the decline in global GDP was about 2%, it is now obvious that in just two months the decline in global GDP is much larger, and according to estimates for March and April 2020 (and did not fly during May), is about 6%, so three times higher (IATA, 2020, Global Data, 2020).

Figure 3. Global GDP growth



Source: IATA, 2020

As the restrictive measures related to the pandemic are gradually lifted, the airlines are rapidly preparing for the application of security procedures and the introduction of the traffic regime according to the new situation. Consolidation of passenger transport is not a process that will take place in already well-established ways. An example is the situation after the attack on the World Trade Center in 2001. The security measures introduced then, which

remained in force for many years, were much more important than the number of transported passengers, several months of falling revenues, layoffs of a large number of employees and consequent strikes of employees in airlines and beyond. Thus, the resumption of air traffic is directly related to the decline in the intensity of the pandemic, health checks, as well as the current interest of passengers. It is undeniable that the interest of passengers, at least during the holidays and the third quarter of the current year, will be higher than in January and February.

State assistance to airlines

Civil aviation is a strategic industry that drives all other branches and segments of life, primarily tourism, trade, business cooperation, labor migration, scientific and educational exchange, sports, diplomacy, politics and the diaspora. That is why the basic preoccupation of many countries is saving airlines, both the largest and the smaller ones. Pandemics could be even worse in the future, so states will continue to strive to maintain control over national airlines as a strategically important resource in crisis situations (Garcia, 2020a, Garcia, 2020b).

A number of airlines around the world received various forms of financial assistance during the pandemic – from direct subsidies, low-interest loans with a grace period of one year or more, and a repayment period of 10 years or more, to government loan guarantees, tax and interest write-offs, reimbursement of salary costs, recapitalization, etc. Thus, for example, Singapore Airlines received state aid of 13 billion dollars, and the government refunds 75% of salaries to employees (Ash, 2020, Daga, Freed, 2020). American airlines received $ 29 billion in aid and loans in March and April this year – American Airlines (5.8 billion), Delta Airlines $ 5.4 billion, and United Airlines $ 5.0 billion. The world's largest low-cost airline, Southwest Airlines, received $ 3.2 billion, while Alaska Airlines received just under $ 1 billion (Slotnick, 2020).

Air France-KLM has secured a loan of 7 billion EUR from France, and a similar move by the Netherlands is expected, but in the amount of 2 to 4 billion EUR (Frost, Deutsch, 2020). The Lufthansa group stated that it needs at least 10 billion EUR in aid from Germany, Switzerland, Austria and Belgium, because it is losing one million euros per hour due to the flight ban. Lufthansa asked the Belgian government for a loan of 290 million EUR, in order to avoid the bankruptcy of the grounded Brussels Airlines (Schuetze, Lauer, Uhlig, 2020). The company has taken a number of measures such as reducing salaries, "shutting down" low-cost Germanwings, decommissioning dozens of the oldest aircraft, and terminating long-term leasing contracts with all partners.

Italy has "pumped" a new 500 million EUR into Alitalia, so since 2017, the total assistance to the national airline amounts to 2 billion EUR in loans, which will turn into an "investment" in the renationalization process (Piovaccari, Landini, 2020). On the other hand, the United Kingdom has stated that it will not grant grants to any company that does not find the means to overcome the consequences of the pandemic - e.g. non-payment of dividends for 2019, investments of owners and new investors, loans, savings, sale of property, etc. (Pickard, 2020).

While American and Asian companies are again in a huge advantage due to the prompt "pumping" of state money, European companies have the problem of "legality of subsidies"

in the conditions of a liberal economy. There are two problems here. American and Asian companies are in a much better situation than European ones. Their position on the market will be even better, because so far they have been in the first places in terms of the number of passengers and planes in the world, so they will be even further away from Europe. Another problem is that this approach will destroy small European companies, which will not be able to return the money in the coming years, so they will go bankrupt, and their market will be taken over by large ones.

As for the airport, they are certainly in a much better position. The Council of International Airports (ACI) stated that airports will lose $ 76 billion due to the coronavirus (Caswell, 2020), which is four times less than the $ 314 billion estimated by IATA (Harper, 2020). Airports are very profitable because they generate huge money, much bigger than airlines. Finally, they have lower costs of cold propulsion, cargo transport, deliveries of medical equipment, evacuation flights went through them during the crisis, they charge for the stationing of grounded planes. Airports are incomparably more adaptable than airlines, which are which are burdened by leasing, huge orders for expensive aircraft, global systems, contracts (joint ventures, alliances). Finally, airports have extended investments in new terminals, equipment and logistics, and redirected planned funds to cover costs due to the corona crisis. Therefore, the airports will survive without the help of the state, and with the prolongation of growth and development (and investments) of several years, without many consequences, they will continue to work as before the crisis.

Conclusion

One of the messages that can be drawn from the current pandemic is that from an economic and social point of view it is much more rational to invest in research and development of vaccines and drugs than to wait for an epidemic to be suppressed by non-pharmaceutical means, such as isolation of citizens. and cessation of economic activities. The specificity of the current pandemic in relation to other major epidemics in the past is that most of the decline in economic activity is due to administrative constraints. Of course, if the states had not applied strict administrative measures, the percentage of sick and dead people would have been many times higher. In general, the willingness to sacrifice income and jobs to protect health and lives is a sign of civilizational progress. However, such a strategy has a great price, because its consequence is a drop in income, an increase in unemployment and poverty, and probably an increase in morbidity and mortality from other diseases. Moreover, such a strategy is sustainable only for a period of several months, because its extension would lead to economic collapse and mass poverty.

An important question is what the national and world economy and society will look like after the pandemic and the economic crisis caused by it. Based on the experiences from previous natural disasters, it can be estimated that after the end of the pandemic, there will be no major and sudden changes in the economy and society or in international relations. However, such events in history have often represented a kind of turning point, after which countries or the whole world have moved in different ways than those they have followed so far. In practice, the term associated with the pandemic has already been coined, "new normality", which should mean changes at many levels, in society, the economy, among people and countries.

Return after the pandemic will be a gradual process, not one determined by the government announcing the date and declaring it "open for business." The stages of this process will vary depending on the sector. There are four areas that companies will focus on the most: resuming business activities, recovering (or stabilizing) revenue, reviewing the organization, and accelerating the adoption of digital solutions. In any case, the speed of the process will be important, but it will still be step by step.

The importance of air transport in the global economy is immeasurable, because in addition to employing a large number of people, it enables the smooth flow of people, goods, capital and information, contributes to the development of ties between countries, progress of tourism and related industries (food, services, etc.). In addition to the suspension of flights, landing of planes and evident losses, the dismissal of a large number of workers in airlines and all activities related to air traffic is a basic problem caused by the pandemic. Consolidation of airlines at all levels will not happen all at once, nor will laid-off workers be returned to work in the same number in which they were laid off. The application of hygienic and restrictive measures in terms of "social distance" will have, at least initially, a reflection on the profitability of each summer. Also, airlines will look to reduce costs and generate revenue that will ensure recovery and introduction to the "new normality". This refers, first of all, to a smaller number of flights and destinations, as well as a smaller number of passengers on planes. Like other industries, air transport faces problems that can become chronic (depending on the occurrence of future epidemics), so airlines must be restructured financially, organizationally and market-wise. And it is, by all accounts, a long-term process that will not be completed by the end of the current year or tourist season.

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ЕКОНОМИКА
ISSN 0350-137X, EISSN 2334-9190, UDK 338 (497,1)
Vol. 67, april-june 2021, № 2
P. 69-88

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SCIENTIFIC REVIEW ARTICLE
DOI: 10.5937/ekonomika2102070V
Received: December, 08. 2020.
Accepted: February, 19. 2021.

THE MAIN FACTORS AFFECTING THE COMPETITIVENESS OF THE OIL PROCESSING COMPLEX

Abstract

The development of the economic situation in Russia in recent years is characterized by the achievement of stabilization at the macro level, the strengthening of investment activity, the expansion of the scope of activities of the processing industry, the strengthening of public confidence in domestic goods and finished products. The research urgency is caused by the fact that in Russia economic competition becomes more acute in oil and fat processing sector, also has a problem of lack of training organizations to consider the impact of external factors and competitive advantages of the industry to ensure financial stability. The purpose of the study is to study the features of factors affecting the competitiveness of the oil processing complex. On the basis of sources of economic literature, the authors studied the competitiveness of vegetable oil production by comparison and identified the problems of insufficient methodological support for studying the impact of factors that determine the current state of the vegetable oil market, methods and approaches for assessing the competitiveness of organizations. The leading direction is a comprehensive approach presented by the authors in the article, including the study of domestic and international experience in determining the factors of internal and external environment that affect the development of the industry. The study of the traditional system of assessing the competitiveness of vegetable oils is given, proposed by Russian and foreign scientists. As a result of the conducted research it is established that modern domestic and foreign methods of the analysis of the competitiveness of vegetable oils do not differ in high quality and have shortcomings. The authors noted that the analysis of the concept of competitiveness of vegetable oils does not take into account the quality indicators are not always fully represented the composition and structure of the concept, not justified organizational and methodological approaches to the analysis of the concept of competitiveness applicable to vegetable oils. The researchers note the need for an objective assessment of the analysis of the concept of competitiveness of vegetable oils to supplement it with a more detailed study of improving the level of competitiveness. In their opinion, the lack of a single definition of the term "competitiveness of products" is one of the most difficult in the formation of an adequate approach to the assessment of the phenomenon. This leads to the fact that the most common assessment is a comparative assessment of similar vegetable oils with ethanol. The study conducted by the authors has scientific and practical significance and will allow to develop a methodological apparatus (parameters and criteria for assessing the level of competitiveness of vegetable oils) in accordance

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with the requirements of the industry in the world economy, as well as to form a set of strategic and tactical management decisions to improve the competitiveness of vegetable oils and mechanisms of interaction in creating competitive advantages and strengthening the market position of vegetable oils.

Key words: *competitive advantage, competitive products, oil and fat industry, oil, trends, factors.*

JEL classification: *L6, Q1*

ГЛАВНИ ФАКТОРИ КОЈИ УТИЧУ НА КОНКУРЕНТНОСТ КОМПЛЕКСА ЗА ПРЕРАДУ УЉА

Апстракт

Развој економске ситуације у Русији последњих година карактерише постизање стабилизације на макро нивоу, јачање инвестиционе активности, проширење обима активности прерађивачке индустрије, јачање поверења јавности у домаћу робу и готове производе. Неопходност истраживања узрокована је чињеницом да у Русији економска конкуренција у сектору прераде уља и масти постаје све оштрија, такође постоји проблем недостатка организација за обуку које би разматрале утицај спољних фактора и конкурентску предности индустрије како би се осигурала финансијска стабилност. Сврха истраживања је проучавање карактеристика фактора који утичу на конкурентност комплекса за прераду уља. На основу извора економске литературе, аутори су компарацијом проучавали конкурентност производње биљног уља и идентификовали проблеме недовољне методолошке подршке за проучавање утицаја фактора који одређују тренутно стање на тржишту биљног уља, методе и приступе за процену конкурентности организација. Водећи правац је свеобухватан приступ који су аутори представили у раду, укључујући сагледавање домаћег и међународног искуства у одређивању фактора унутрашњег и спољног окружења који утичу на развој индустрије. Изложена је студија традиционалног система процене конкурентности биљних уља, коју су предложили руски и страни научници. Као резултат спроведеног истраживања утврђено је да се савремене домаће и стране методе анализе конкурентности биљних уља не разликују у квалитету и да имају недостатке. Аутори су приметили да анализа концепта конкурентности биљних уља не узима у обзир показатеље квалитета, да нису увек у потпуности представљени састав и структура концепта, да нису оправдани организациони и методолошки приступи анализи концепта конкурентности који се примењују у области биљних уља. Истраживачи примећују потребу за објективном проценом анализе концепта конкурентности биљних уља како би га допунили детаљнијом студијом побољшања нивоа конкурентности. Према њиховом мишљењу, недостатак јединствене дефиниције појма „конкурентност производа" један је од најтежих у формирању адекватног приступа процени појаве. То доводи до чињенице да је најчешћа процена упоредна процена сличних биљних уља са етанолом. Студија коју су спровели аутори има научни и практични значај и омогућиће да се развије методолошки апарат (параметри и критеријуми за процену нивоа конкурентности биљних уља) у складу са захтевима

индустрије у светској економији, као и да се формира скуп стратешких и тактичких управљачких одлука за побољшање конкурентности биљних уља и механизама интеракције у стварању конкурентске предности и јачању тржишне позиције биљних уља.

Кључне речи: *конкурентска предност, конкурентни производи, индустрија уља и масти, уље, трендови, фактори.*

Introduction

An important part of the Russian food industry is the production of vegetable and animal oils. The production of vegetable oil is a socially important commodity consumed by households, used by catering enterprises, and in industry for further processing. The idea of competitiveness of production of oil and fat branch of a vegetable origin in modern conditions became one of the main along with judgment on efficiency of production of vegetable oils. In ensuring the food security of the country, the task of achieving a high level of competitiveness of the processing industry is one of the key for economic entities that are engaged in expanding the production of oils from sunflower seeds, corn, olive, rape (Almazov & Katischin, 2014, p. 23).

The analysis of scientific literature showed that competition is a driving force of development of society, has a positive impact on the growth of investment, increase in the volume and quality of finished products. It should be noted that most scientists consider the competitiveness of products as a property of the object, which can be characterized by the ability to compare the real satisfaction of a need with similar objects.

The economic literature identifies the following problems that adversely affect the development of the fat-and-oil industry:

- macroeconomic instability in the country;
- low share of investments in fixed assets;
- insufficient implementation of innovations in the technological process and organization of production;
- lack of implementation of achievements of modern research results of the use of non-waste, frugal, technologies, equipment in order to optimize costs to ensure competitive pricing of products;
- availability of financial risks;
- lack of public-private partnership.

The purpose of the study-to show the need for analysis and consideration of factors affecting the development of the fat and oil industry, the aggregation of all signs of their set in assessing the competitiveness of organizations and products to determine the effective financial condition of organizations. This requires not only the definition of generalizing characteristics, but also the formation of an assessment taking into account the establishment of the relationship between the indicators of each factor and the analysis based on the ordering of its individual elements according to certain properties and principles.

The scientific significance of the work is to systematize and complement the factors of internal and external environment, allowing taking into account the conditions,

direct control over which organizations cannot exercise and the conditions on which they can have an impact as a result of economic activity and work with counterparties on business transactions and transactions.

The hypothesis of the study is based on the objective need in modern conditions for the organizations of the processing oil and fat industry to improve the assessment and analysis of factors affecting the increase of its competitiveness. This includes the allocation of the totality of real factors of the main, which are based on the advantages of the organization, as well as the modernization and elimination of certain shortcomings of existing methods in order to fundamentally change the algorithm of integrated assessment of factors.

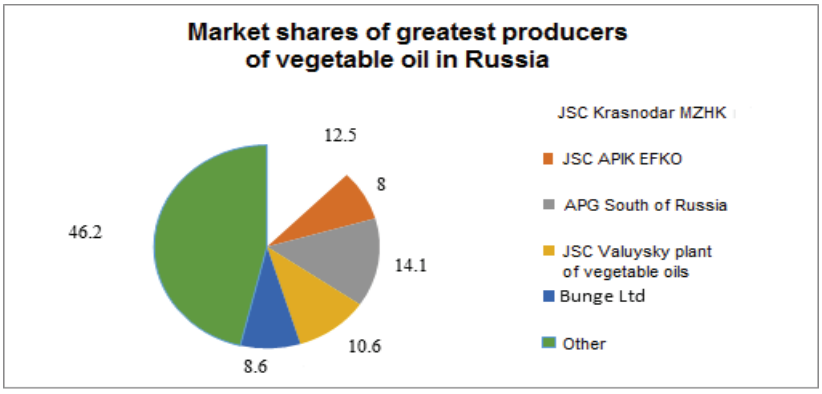
Materials and methods

According to the authors, insufficient attention to the impact of environmental factors on food industry organizations reduces the effectiveness of decision-making to improve their competitiveness. It should be noted that the production of sufficient quantities of oils from sunflower seeds, corn, olives, and rapeseed contributes not only to meeting the needs of the population, but also determines the creation of new social needs that lead to the creation of new production products based on their further processing. Today, the Russian oil and fat market has a good potential for development, despite the problems.

In modern conditions, economists estimate the volume of the oil and fat industry in the amount of 2.5 billion rubles. On the market, depending on the degree of purification, the following range of vegetable oils are produced: unrefined, which were only subjected to mechanical cleaning; refined, neutralized; deodorized, hydrated, and others. All of them have features in the production process and each type occupies its own market segment and finds its consumers (Belyy & Barashkov, 2020).

In the food market of vegetable oil in our country, the largest organizations are: JSC "Krasnodar MZHK", JSC APIK "EFKO" and APG "South of Russia", JSC "Valuysky plant of vegetable oils", Bunge Ltd (TNK). Analysts note that the share of these manufacturers is 53.8% of the vegetable oil market. And in each of these companies, there is a specialization for 80-90 % of sales volume under one main brand (grade) (Alto Consulting Group, 2017).

Figure 1: Market shares of greatest producers of vegetable oil in Russia (in %)



Source: Alto Consulting Group, 2017

The chart shows that the largest share in the structure of food of the vegetable oil market of our country is agriculture "South of Russia" – 14.1%; smallest – ZAO APIK "EFKO" - 8% in the other group consists of a small enterprise on manufacture of vegetable oil, which is 46.2 per cent (Figure 1).

Today, there is an increase in sales of vegetable oil by wholesale organizations. These volumes include the sale of vegetable oil by regional enterprises mainly processing organizations and they form up to 90% of all purchases of products by wholesale organizations.

Questions of increase of competitiveness of the oil industry were investigated by the number scientists and institutions (Bakievym & Jacotot, 2017; Dontsova & Donets, 2007; Yermolov & Koto, 2007; Svechnikova & Figurnov, 2007; Federal Law No. 52-FZ; Federal Law No. 102 – FZ; Technical Regulation CU 022/2011; Vinogradova et al., 2014; Association of producers and consumers of fat and oil products (APMP), 2017; Russian and world vegetable oil markets, 2013).

The economic literature presents a wide variety of foreign and domestic methods and approaches to study the factors of the external and internal environment that affect the competitiveness of industrial organizations. In the practice of Russian and international analysts, the assessment and analysis of the competitiveness of the organization and its products is based on the use of the following sources of information: accounting and financial reporting data; information received from independent analytical agencies, tax authorities, as well as presented in the media about the organization and the industry as a whole.

In our opinion, traditionally the assessment of the competitiveness of organizations is carried out according to various criteria and groups of indicators:

- quality: the index of the level of prices for products; consumers ' opinion about the quality of products, compliance with the range of manufactured products to the needs of consumers, the frequency of updating the range; prestige and reputation of the organization, information support of production and sale of products; the use of competitive advantages;
- quantitative: use of the market potential of the organization; market share; state and level of use of material and technical base; availability of profit; availability of own working capital; innovative management of competitiveness factors.

The choice of criteria and indicators for assessing the competitiveness of the organization and products depends on the goal and the need to improve the organizational management of the production of goods.

It should be noted that today it is important to consider the assessment of the competitiveness of vegetable oil production as a separate independent unit, taking into account the factors and environmental conditions of organizations. The analysis of the sources of the literature allowed a defining insufficient degree of studying of theoretical approaches to the technology of its carrying out.

The relevance and practical significance of increasing the competitiveness of the fat-and-oil industry determined the purpose and objectives of the study: to consider the current state and trends of the market of sunflower seeds, corn, olive, rapeseed processing in Russia and identify the factors that determine it, as well as to develop proposals to improve their competitiveness.

Results

The legislation is supposed to analyse the regulatory documentation that ensures the quality and safety of vegetable oils and includes Federal Laws, Technical Regulations, State Standards. The Federal Law No. 29 - FZ "On the quality and safety of food products" defines the relationship arising in the field of food quality and safety for human health.

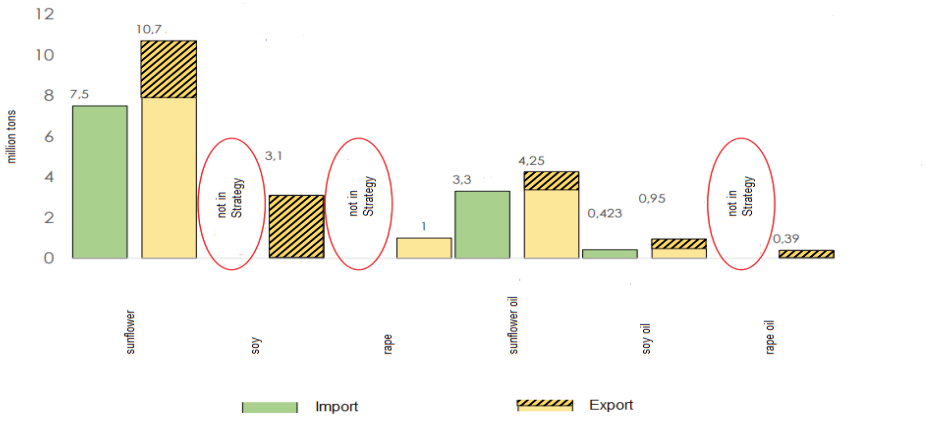
Federal Law No. 52-FZ "On sanitary and epidemiological welfare of the population" provides sanitary and epidemiological welfare of the population as one of the key conditions for the implementation of the constitutional rights of citizens to health care and a safe environment.

Federal Law No. 102 - FZ "On ensuring the uniformity of measurements" regulates the relations arising at performance of measurements, establishment and observance of rules to measurements, measurement units, measurement standards of measurement units, standard specimens, measuring instruments, application of standard samples, measuring instruments, methods (methods) of measurements, and implementing activities on ensuring the uniformity of measurements envisaged by the legislation of the Russian Federation on ensuring the uniformity of measurements, including at performance of works and rendering of services on ensuring the uniformity of measurements.

Federal Law No. 104-FZ "On technical regulation" regulates relations arising in the development, adoption, application and execution of mandatory requirements for products, including buildings and structures, or to products and related product requirements processes of design (including research), production, construction, installation, commissioning, operation, storage, transportation, sale and disposal.

Technical regulation CU 005/2011 "On packaging safety" applies to all types of packaging, including capping agents, which are finished products released into circulation in the customs territory of the Customs Union, regardless of the country of origin.

Figure 2. Realization of the purposes of the Strategy of development of food and processing industry till 2020 in oil and fat industry



Source: Association of producers and consumers of fat and oil products (APMP), 2017

In the world market of sunflower oils Russia, Ukraine and Argentina are recognized as the main rival states.

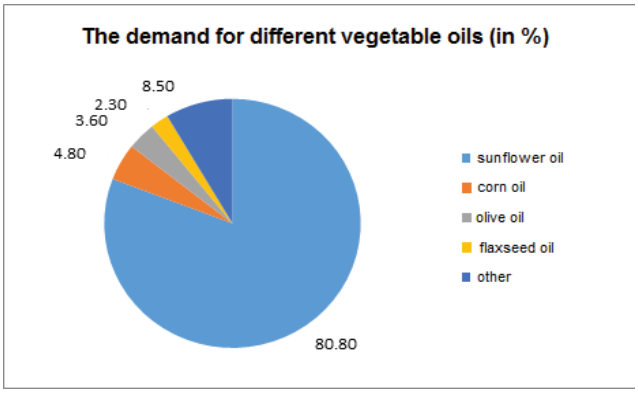
The Russian market of sunflower oil is aimed at 3 directions:

1. realization of vegetable oils to the population and application in public catering system;
2. application in fat-and-oil, canning and fish sectors;
3. application for the manufacture of soap and paints.

The fat-and-oil industry leads the non-primary non-energy export of medium-sized agricultural products by a huge margin. The green color in figure 2 shows the import of vegetable oils, and the yellow color shows the export of vegetable oils. Basically, as you can see in the figure, sunflower oil is imported and exported.

Commodity experts forecast an increase in competition in the oil processing industry, which is confirmed by an increase in the market share of large companies and a decrease in the share of local producers. In addition, there will be a decrease in the share of production of vegetable oils from soybeans, rapeseed. But there is also a positive dynamics of development.

Figure 3. The demand for different vegetable oils (in %)



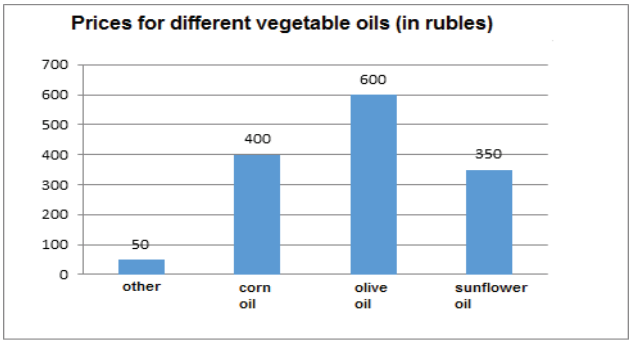
Source: Mavrina & Mokronosov, 2007

The figure 3 shows that the greatest demand in the vegetable oil market is sunflower oil - the share of this segment is 80.8%. In second place in consumption is corn oil, which occupies 4.8%. The share of this type of oil also shows a positive growth rate, but the price is more expensive than sunflower. The olive oil segment by volume covers only 3.6% of the market, the Flaxseed oil segment 2.3%. All olive oil presented on the Russian market is imported from abroad. Other vegetable oils (rapeseed, soybean, peanut, cotton, etc.) account for 8.5% of the market.

The figure 4 shows that the price structure of the vegetable oil market is as follows:

- olive oil is more expensive.
- on the 2nd place is corn oil.
- on the 3rd place according to the price is sunflower oil.
- the 4th place in value includes the following types of oil: rapeseed, soybean, peanut, cotton, etc.

Figure 4. Prices for different vegetable oils



Source: Belyy & Barashkov, 2020

The degree of consumption of vegetable oil depends on the region. The regional structure of the vegetable oil market differs significantly from the all-Russian one. The information is shown in figure 5:

- in the Northwest, the proportion of corn oil is well above the national average of 10.1%.
- in the South, the share of corn oil is slightly below the level of consumption and is 7.2%.
- in the Capital region and the Volga region, the share of corn and sunflower oil is 86.1%.
- in the Ural region - 3.2%, in the Central region - 3.1%, in the far East - 2.7%, in Siberia - 1.7%.

After analyzing the above data, it is possible to trace the decline in the share of sunflower oil in the remote Northern and far Eastern regions. This trend is associated with the impossibility of growing oilseeds in remote regions and proximity to other countries (for example, China), which import other vegetable oils to these regions, thereby forming a demand for them.

Consumption of vegetable oils is equally distributed across all regions. This is due to the traditional diet and the habit of Russians to choose sunflower oil. But in some regions it is still significantly less than in others. For example, in the far East, the share of sunflower oil is 66.4%, and the share of other types of vegetable oil (soybean, corn) there also covers 30.3%. This is due to the fact that the region is remote from the key areas of sunflower cultivation, and in addition, the proximity of China, which supplies inexpensive oil raw materials for the manufacture of other types of vegetable oil (Agribusiness, 2015).

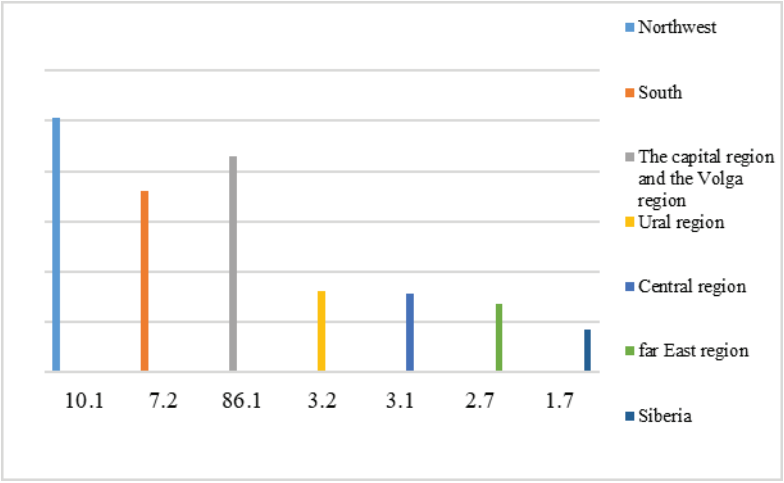
The new economic framework calls on food companies to take other strategic approaches to increase competitiveness. The competitiveness of food products depends on many factors, among which there are causal relationships. These factors are:

1. The human factor - the effectiveness of the enterprise is determined by the competencies, knowledge of employees. Of particular importance in food enterprises acquires competent qualified personnel.
2. Price factors - have a great influence on the cost of production. Price factors include: production costs; sales price; raw material costs; operating costs.

The cost of a product expresses not only the costs of production and the relations between producers and consumers, but also the level of income of the population, marketing management systems that make it possible to effectively apply a variety of pricing strategies.

3. Non-price competitiveness factors are not only internal information, purchasing power, but also the time limits within which management decisions are made.
4. Internal factors - influence of internal economic activity. These factors determine the ability of the enterprise to ensure its competitiveness (the potential of marketing services, industrial level, financial, economic, scientific and personnel potential, the concept and means of sales promotion, the level of service and warranty service, storage, transportation, packaging of products, providing production with the necessary resources).
5. External factors – environmental impact (state-level measures aimed at influencing economic, investment, depreciation, tax policy).
6. Product quality - a direct impact on the quality characteristics of competitiveness.

Figure 5. Regional structure of the vegetable oil consumption



Source: Association of producers and consumers of fat and oil products (APMP), 2017

The structure of estimated characteristics of competitiveness of production contains 2 groups of parameters: qualitative and economic.

Qualitative indicators reflect the totality of the properties and characteristics of the product that give it the ability to meet the conditioned or anticipated needs. Quality contains many components. These include characteristics of destination of the product, feasibility, environmental indicators etc. To assess the level of competitiveness of production is impractical and very difficult application of all quality indicators.

One of the sources of information for the definition and evaluation of quality indicators is marketing research conducted on the basis of surveys and questionnaires

of consumers. The competitiveness of products is assessed using criteria that make it possible to identify the most important characteristics of the goods for consumers, which are the main factors of its competitiveness. By improving the characteristics of goods, an enterprise can best increase the competitiveness of its own products.

The most common way to assess the competitiveness of products is the index method. It is based on the analysis of comparison of qualitative and cost indicators of the product under study with the requirements of the market, i.e. buyers. In practice, due to the complexity of obtaining complete and accurate information about the needs of the buyer, the competitiveness of products is evaluated indirectly with the help of a sample product. In this case, the basis is taken, not a need, but a sample product or a basic product that is in maximum demand in the market and, therefore, acting in the form of materialized average requirements for competitive products.

The index method involves assessing the competitiveness of products using single and group parametric indicators, as well as generalizing (integral) indicator (Krainova & Palitzina, 2016).

Single indicators determine the degree of satisfaction of the buyer's needs and are calculated as the ratio of the value of the particular quality parameter or economic parameter of the analyzed goods to the value of the same parameter at which the element of the need is fully satisfied. Formulas for calculating the unit parametric index of qualitative parameters have the form:

$$qi = Pi / Pi6 \quad (1)$$

$$qi = Pi6 / Pi \quad (2)$$

where:

qi is the unit parametric index of the i-th qualitative parameter of the goods;
Pi is the value of the i-th qualitative parameter of the analyzed product;
Pi6 is the value of the i-th qualitative parameter of the base product.

Formula (1) is used for qualitative indicators on which the competitiveness of products is directly proportional (for example, productivity – the higher the productivity of the equipment, the higher its competitiveness). Formula (2) is applied when the quality parameter affects the competitiveness of the product (for example, fuel consumption – the higher the fuel consumption, the lower the competitiveness of the machine). In this way, you can make calculations on all quality parameters, resulting in a complete set of indicators characterizing the deviation of the properties of the analyzed product from the requirements of the buyer, expressed in the base product.

There is a close relationship between the production of oilseeds and the processing industry. The increase in the production of vegetable oils, as well as the expansion of their range largely depends on the development of the material and raw material base and the structure of the production of oilseeds (Gusev, 2011; Mavrina & Mokronosov, 2007).

The main types of agricultural raw materials in Russia for the production of vegetable oils are sunflower seeds, soybeans and rapeseed (Table 1); seeds of other oil plants (flax, mustard, castor, hemp, etc.) are processed in relatively small volumes.

Table 1. Technical and economic indicators of the fat-and-oil industry in Russia in 2018

Total production of vegetable oils	3034.8 kt
Average annual capacity of oilseeds processing	9194.1 kt
Index of production	98.2%
The share of vegetable and animal oils and fats in the total volume of food products sold	5.3%
The share of fixed assets of production of vegetable and animal oils and fats in the total volume of the food industry	5.5%
Number of employees in the industry	39.1 thousand people
Average monthly wages in the industry	19.4 thousand rubles
Average per capita consumption of vegetable oils	16 kg / person / year

Source: Gusev, 2011

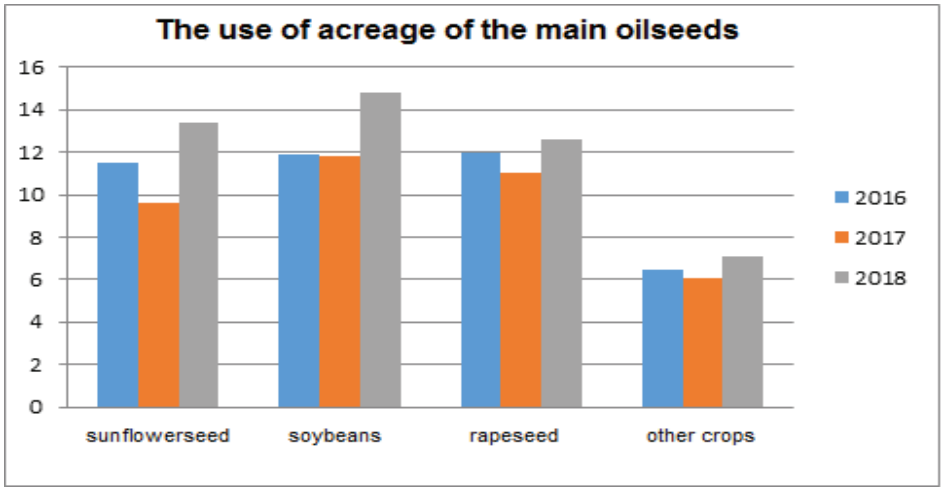
Table 2. Acreage, gross yield and yield of the main types of oilseeds in the Russian Federation in 2016-2018

№	Indicators	Unit	Years			2017 to 2016,%
			2016	2017	2018	
1.	Sown area	000 ha	8020.4	9616	10447	108.6
	sunflower		6195.6	7154	7614	106.4
	soy		874.6	1206	1229	101.9
	rape		688.1	856	893	104.3
2.	Gross harvest of seeds	000 t	8185.9	7457	13115	175.9
	sunflower		6454.3	5345	9697	181.4
	soy		943.7	1222	1756	143.7
	rape		666.8	670	1056	157.6
3.	Yield	Centner/ hectare	11.5	9.9	13.3	134.3
	sunflower		11.5	9.6	13.4	139.6
	soy		11.9	11.8	14.8	125.4
	rape		12.0	11.0	12.6	114.5
	other		6.5	6.1	7.1	93.8

Source: Mishulina & Gorelova, http://articlekz.com/article/8490

Using the table, we analyze the acreage of various oilseeds.

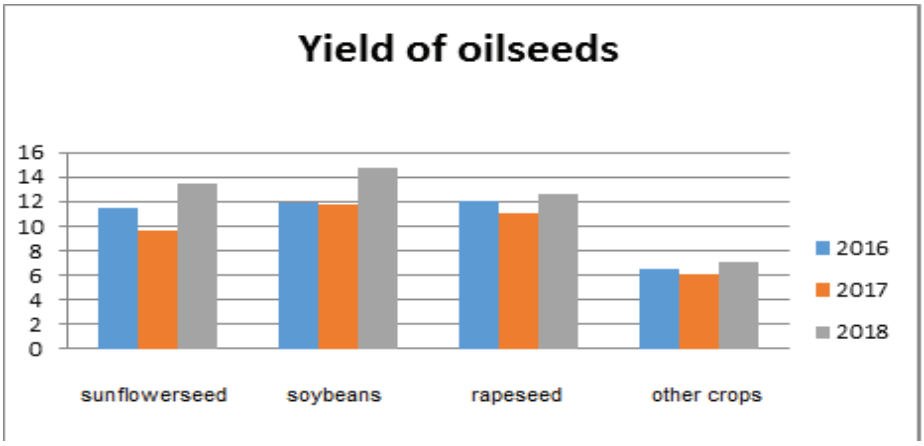
Figure 6. The use of acreage of the main oilseeds 2016-2018 (in %)



Source: Mavrina & Mokronosov, 2007

The diagram shows that the sown areas of sunflower occupy a large area for sowing, the smallest area is occupied by other crops. Acreage of major oilseeds (sunflowerseed, soybeans and rapeseed) in the Russian Federation from 2016 to 2018, according to Rosstat, increased by 20% with 8020.4 to 9615.6 thousand hectares, including sunflower 15.5%, soybean 37.8%, rape by 24.4% and amounted to respectively 7153.5 thousand hectares thousand hectares 1205.7 and 855.9 thousand hectares.

Figure 7. Yield of oilseeds (in %)

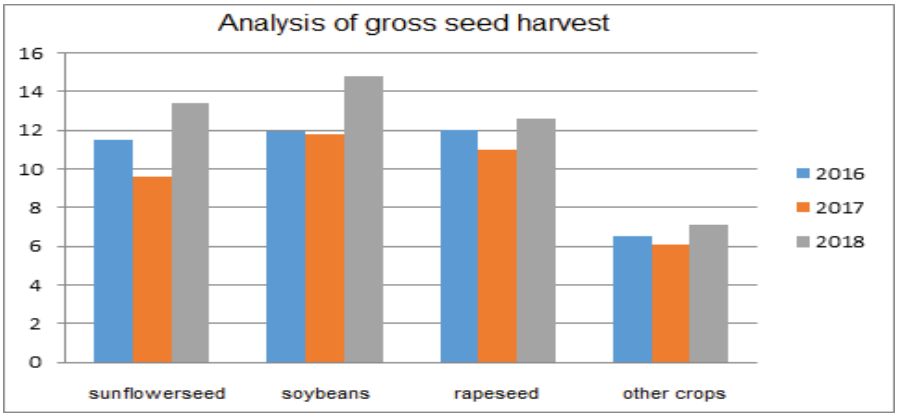


Source: Alto Consulting Group, 2017

In 2018, the acreage for the main crops continued to increase: sunflower, rapeseed, soybeans. Increased and their productivity, which provided a significant increase in the volume of procurement of oilseeds. It should be noted the interest of agricultural producers to soybeans and rapeseed, which are made of a variety of fat and oil products. Secondary resources obtained during their processing are in great demand in the production of animal feed. In recent years, a number of regions of Central and Southern Russia have begun to show interest in flax, from which a wide range of products and flax fibers can also be obtained. This makes this culture popular for farms in terms of high income. The chart shows that in 2017 there was a decrease in the yield of the main seeds. The decrease in the yield of sunflower seeds, soybeans and rapeseed, due to the drought, did not contribute to the increase in the gross harvest of oilseeds in the country.

Next, we analyze the gross collection of seeds. The Figure 8 shows that in 2017 there was a decrease in the yield of the main seeds. The decrease in the yield of sunflower seeds, soybeans and rapeseed, due to the drought, did not contribute to the increase in the gross harvest of oilseeds in the country.

Figure 8. Gross seed harvest (in %)

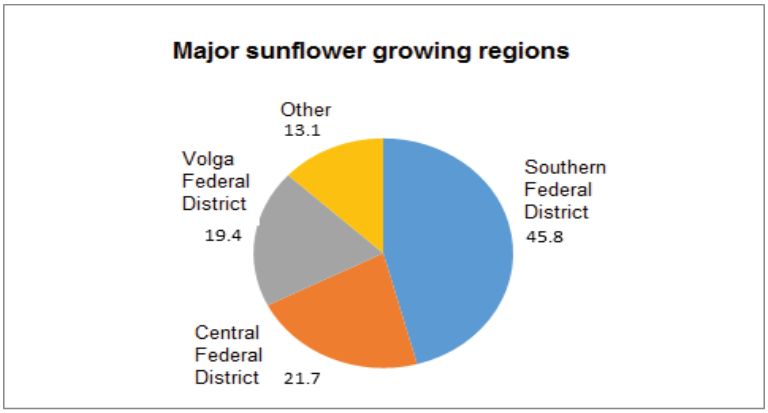


Source: Buklagin, 2019

The diagram shows that the gross harvest of oilseeds in 2017 decreased by 729.2 thousand tons and amounted to 7456.7 kt, or 91.1% to the level of 2016. The gross yield of seeds occurred on the sunflower 1116.1 THD. MT to 5338.2 kt, or 82.7% to 2016.

The main regions involved in the cultivation of sunflower are the Southern Federal district, Central and Volga.

Figure 9. Major sunflower growing regions (in %)



Source: Belyy & Barashkov, 2020

The diagram shows that the main sunflower growing region is the Southern Federal District. It accounts for 45.8 per cent of production, or 2444.3 thousand tons. Central and Volga Federal districts is respectively 21.7% and 19.4% of the total production of sunflower. The rest of the regions accounts for 13.1%.

The production of certain types of oilseeds depends on the natural conditions of each region of Russia, so the distribution of their cultivation in different Federal districts is different (Table 3).

The increase in the acreage occupied by rapeseed allowed to rapeseed harvest in the amount of 671.5 thousand tons, which is comparable to the volume of rapeseed production in 2017. The North Caucasus Federal district is the leader in the cultivation of rapeseed-195.6 thousand tons, or 29.1%, including in the Stavropol territory - 182.3 thousand tons, or 27.1% of the domestic collection of rapeseed. The southern and Central Federal districts accounted for 21.2 and 18.7%, or 142.7 and 125.8 thousand tons of rapeseed.

Last year 2018 was favorable for growing sunflower beans. The increase in acreage allowed increasing the gross harvest of sunflower beans by 29.5% to 1.2 million tons, which is 278.7 thousand tons higher than in 2017 and is a record for the last 20 years. Traditionally, the main volumes of sunflower beans are grown in the far Eastern Federal district — 814.1 thousand tons, or 66.8% and in the Krasnodar region — 212.9 thousand tons, or 17.5%.

A characteristic feature of the last decade in the market of vegetable oils was the factor of increasing import and export of tropical vegetable oils, which have become widely used in the food industry — dairy, confectionery, bakery, oil and fat, soap and perfume and cosmetic industries. And if the use of tropical oils in the soap-making and perfumery and cosmetic industries is quite normal and meets the requirements of the technologies used, their use in industries producing socially important food products is highly questionable given their volume (Skornichenko & Oruch, 2012).

Table 3. Sunflower, soybean and rapeseed production volumes by Federal districts of Russia in 2017-2018, kt

Federal district	Sunflower				Rape			
	2017	2018	2018/2017	Share, %	2017	2018	2018/2017	Share, %
Russian Federation	6454.3	5338.2	82.7	100	666.8	671.5	100.7	100
CFD	1555.6	1156.2	74.3	21.7	169.1	125.8	74.4	18.7
SZFO	No data				105.1	64.4	61.3	9.6
SFD	2818.5	2444.3	86.7	45.8	74.9	142.7	190.4	21.2
SKFO	349.3	407.6	116.7	7.6	105.9	195.6	184.7	29.1
PFD	**1438.8**	**1036.8**	**72.1**	**19.4**	**133.0**	**21.9**	**16.5**	**3.3**
UFO	7.4	12.6	169.1	0.2	13.6	23.9	175.6	3.6
SFO	284.6	280.6	98.6	5.3	65.0	97.2	149.6	14.5
DFO	0.1	0.1	104.5	0.002	No data			

Source: Pilipenko et al., https://m.cyberleninka.ru/article/v/aktualnye-voprosy-upravleniya-kachestvom-rastitelnogo-masla /In Russian/

The authors identified the factors affecting the competitiveness of fat and oil products and the organization. The system of factors is shown in Figure 10.

The competitiveness of products (services) depends on a number of factors that affect the preference of goods and determine the volume of their sale in a given market. These factors can be considered components (components) of competitiveness and divided into three groups: organizational and managerial, technical and economic, commercial. We have refined and supplemented the factors for the processing industry.

In addition to these factors of competitiveness of the organization allocate regulatory factors that reflect the requirements of technical, environmental and other (moral and ethical) safety of the use of goods in the market of vegetable oils, as well as patent requirements (patent purity and patent protection). In case of non-compliance of the goods with the norms and requirements of standards and legislation applicable in the period under review, the goods may not be sold. Therefore, the assessment of this group of factors and components using the compliance factor has no further continuation. This condition acts as a restriction requiring mandatory implementation of rules, norms, standards (Alto Consulting Group, 2017).

In modern conditions, there is a need to change the orientation and evaluation criteria of the developed and manufactured products. Competitiveness is determined by a set of properties of products included in the structure of its quality and significant for the consumer, determining the costs of the consumer for the acquisition, consumption and disposal of products.

As a rule, most of the enterprises of the fat-and-oil industry in the activity attract investments (in terms of providing financing), the following factors are provided:

- the state of production facilities and the availability of an absolute cycle of processing of sunflower seeds (with an analysis of the" production " of the product at each production stage);
- organization of lean production in the organization;
- organization of business processes;
- availability of own warehouse space for storage of raw materials of plant origin, requiring maintenance of storage temperature, humidity;
- availability of raw materials (relationships with suppliers and logistics of the company's customers);
- availability of own distribution;
- variety of production line;
- climatic conditions of the region and their forecast values (for 2018-2019);
- volumes of oilseeds;
- dynamics of prices in the foreign and domestic market;
- entry of the enterprise into the group of companies (focus of the group, analysis of market share).

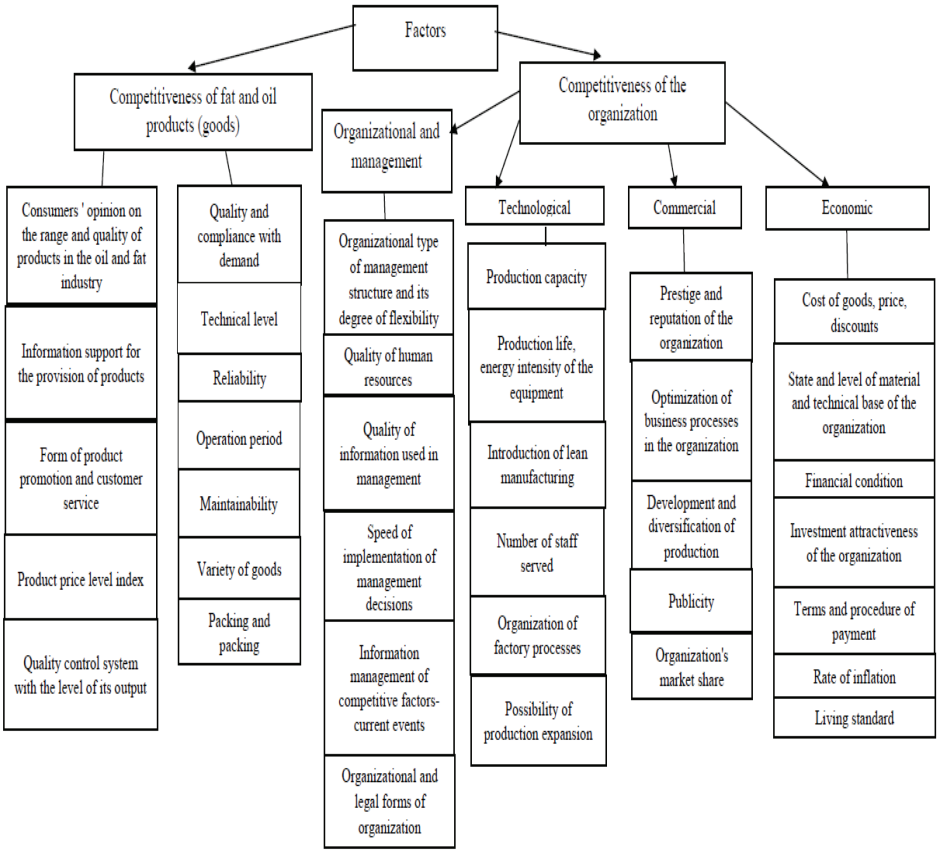
Having considered all the factors that have a great impact on the competitiveness of the organization and products, we can say that in modern conditions, the indicators characterizing the specifics of the fat-and-oil industry are of great importance. The authors highlight the factors: lean manufacturing in the organization and the organization of the factory processes.

Lean production is a production system based on the constant desire to eliminate all types of losses in the enterprises of the fat-and-oil subcomplex. Lean production at enterprises can not be carried out without involvement in the management, technological process of optimization and automation of production. Any lean production involves focusing on consumers and maximizing the profits of the firm (Alto Consulting Group, 2017).

The system "Lean production" makes it possible to adjust production to the needs of customers by minimizing costs. Lean manufacturing often requires large capital investments for the purchase of equipment, materials, technologies etc. to maximize the profit of the firm by changing the organizational culture of production management, system of relationships between different levels and departments of an enterprise, the system of value orientations of employees and their relationships.

Since September 2014, "Process factories" have been formed and created at the enterprises of the fat-and-oil industry that produce vegetable oils. This is the so-called "educational game", which is based on the latest technological processes for the manufacture of vegetable oils. Broadcasting the experience of a group of workers simulates the work of a small enterprise for the production of vegetable oils. Each participant has his own position-worker, controller, logistician, technologist-and his own area of responsibility. The task of the "process factory": to organize a profitable production of vegetable oils in 30 minutes and to instill skills of lean production.

Figure 10. System of factors influencing competitiveness



Source: Compiled by the authors

Vegetable oil companies are guided by the concept of lean production. Waste in the form of meal goes to feed production. "Process factory" is an advanced model for the development of new thinking in production and office workers. In the so-called process factories there is a development of new contracts and transformation into information, digital technologies of business. The new project "process factory" is planned to be launched at the end of 2019 at many oil processing enterprises (Dolmatova et al., 2015).

In the next 10 years there will be a significant transformation of the fat and oil industry. Of course, there will be oil processing enterprises in pure form, but combined production will increasingly take the lead. There will be other strong points of growth – these are innovative developments. It is safe to say that when Russia learns to effectively manage its resources in the fat and oil industry, it will inevitably have the opportunity to actively influence the future of the world.

Thus, the competitiveness of products and organizations is dependent on the considered organizational and managerial, regulatory, innovative factors and conditions that affect the level of increasing the competitiveness of products. It is difficult to define

and quantify this dependency, but it is an incentive to find ways to assess and improve competitiveness. Expert methods are most suitable for this purpose. It is advisable to study the impact of these factors on the preference of goods.

Conclusion

The problems of increasing the competitiveness of vegetable oil products organizations are considered one of the most important and relevant. It is necessary that they find their solution at the level of the Russian regions, because it is here that the planned projects for the processing of agricultural raw materials – oilseeds-are directly implemented. In a short period of time, efforts should be made both by the Executive power and business, so that agriculture can modernize outdated agricultural machines, use the achievements of scientific and technological progress and borrow the experience of other States on technologies of cultivation and processing of oilseeds. According to the authors, it is necessary to improve the market infrastructure in the commodity and consumer markets, to eliminate the negative impact on competition from monopolists and various intermediaries (buyers). It is necessary to facilitate the access of producers of fat and oil products to the consumer market (Pilipenko et al.).

The quality of products is the most important factor of the company in a market economy, ensuring its competitive ability and increase profits. Activities to improve product quality are carried out rationally within the framework of system management, which covers the entire life cycle of products from design to consumption and disposal.

Increasing the competitiveness of domestic fat and oil products not only gives it an advantage in the domestic food market, but also seriously affects the interests of well-known multinational companies. It is no coincidence that the export of vegetable oils has increased significantly. It is very important, increasing production volumes for the domestic market, to constantly expand the Russian presence in the international market. Thus, we can talk about a positive trend in the development of the fat-and-oil complex in Russia. The main guideline of the economic strategy of enterprises, a factor of competitiveness is considered to improve the quality and safety of products.

According to the authors, an important component of improving the competitiveness of the fat-and-oil industry is the improvement of organizational and economic tools for its implementation to determine the future strategic programs that will establish the competitiveness of the processing industry at the regional level.

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