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SUSTAINABLE ENTREPRENEURSHIP: CREATING OPPORTUNITIES FOR GREEN PRODUCTS DEVELOPMENT

Abstract

The paper explains the concept of sustainable entrepreneurship, as a sub-concept of social entrepreneurship. The factors influencing the development of sustainable entrepreneurship are examined on the sample of 12,011 entrepreneurs and small and medium-sized enterprises (SMEs) offering a "green product" in 37 countries. The data used in the study are from the Flash Eurobarometer Report 426 (SMEs, Resource Efficiency and Green Markets). The results revealed that, according to the perception of sustainable entrepreneurs, the biggest impact on starting and developing a business in the environmental sphere can have: financial incentives, measures related to easier market access, technical assistance in the development of "green product", and advisory assistance in marketing and distribution of "green product".

Key words: *sustainable entrepreneurship, green product, financial incentives.*

JEL classification: L31, O35, Q52

ОДРЖИВО ПРЕДУЗЕТНИШТВО: СТВАРАЊЕ МОГУЋНОСТИ ЗА РАЗВОЈ ЗЕЛЕНИХ ПРОИЗВОДА

Апстракт

У раду је објашњен концепт одрживог предузетништва, као подконцепт који се развио из социјалног предузетништва. Анализирани су фактори који утичу на развој одрживог предузетништва, на узорку од 12.011 предузетника и малих и средњих предузећа (МСП) који нуде „зелени производ" у 37 земаља. Подаци коришћени у студији су из извештаја "Flash Eurobarometer 426". Резултати су показали да, према перцепцији одрживих предузетника, највећи утицај на покретање и развој посла у еколошкој сфери могу имати: финансијски подстицаји, мере везане за лакши приступ тржишту, техничка

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помоћ у развоју „зеленог производа" и саветодавна помоћ у области маркетинга и дистрибуције „зеленог производа".

Кључне речи: *одрживо предузетништво, зелени производ, финансијски подстицаји*

Introduction

The massive use of fossil fuels during the 20th century caused the "greenhouse effect", worrying about climate change, and many other environmental problems. This has led to the actualization of the issue of sustainable development (Krstić & Ivanović-Đukić, 2011). To address this issue, several declarations have been adopted (UN Convention on Climate Change in Rio de Janeiro, Kyoto Protocol) committing states to use natural resources more efficiently and encourage activities that lead to the preservation of the environment. In most countries, environmental legislation is in force, which obliges economic entities to respect environmental principles, i.e. to reduce the emission of harmful gases, increase energy efficiency, and increase the efficient use of natural resources. At the same time, a large number of incentives are provided for companies that contribute to the protection of the environment, apply cleaner technologies, and consume natural resources rationally. Also, incentives are provided for individuals who introduce environmental innovations and start new businesses in which these innovations are implemented, i.e. "sustainable entrepreneurs" (Hoogendoorn et al., 2019).

Sustainable entrepreneurs are individuals who start a business to solve some environmental problems (they offer so-called "green products") in an economically sustainable way (Hockerts & Wustenhagen, 2010; York et al., 2016). These socially and environmentally conscious individuals fulfill a vital role in society because they offer solutions to complex environmental problems which are neglected or ignored by government, existing companies, or society (Shepherd & Patzelt, 2011). More broadly, they are motivated to contribute to sustainable development, i.e. "meeting the needs of present generations without compromising the ability of future generations to meet their own needs" (WCED, 1987, p. 43).

Sustainable entrepreneurship is of great importance for society and the environment. However, establishment and development of a business in the field of ecology are influenced by a much larger number of factors compared to the development of a classic commercial company. In order to stimulate the establishment of companies that offer "green products" and encourage their development, it is necessary to identify the factors that have the greatest impact (both positive and negative) on their business. The subject of this paper is the identification of key success factors of companies in the environmental sphere.

The paper is structured as follows. After the brief explanation of the concept of sustainable entrepreneurship, the analysis of the factors that have a stimulating and limiting effect on the development of sustainable entrepreneurship will be presented. Finally, based on Flash Eurobarometer data, the success factors of companies offering "green products" in 37 countries will be analyzed and discussed.

1. Literature review

1.1 The roots of sustainable entrepreneurship

Many countries in Europe in the 1980s had a problem with unemployment, which they could not solve with the existing mechanisms of social policy. New solutions had to be found that would enable certain social groups (such as: long-term unemployed people, low-skilled workers, people with disabilities, people older than 50, members of ethnic communities, single parents, spouses from families in which both spouses are unemployed, people who have been serving a prison sentence, people who face existential difficulties due to addiction to alcohol, drugs or other intoxicants, after completing rehab programs, etc.) to participate in the labor market (Certo & Miller, 2008). As a possible solution to this problem, it has begun the establishment of social enterprises.

Social enterprises appeared as innovations in the public sector, whose primary goal was to care for socially vulnerable groups and to train people who were disadvantaged in society and could not be self-employed. The first social enterprise was founded in 1991 in Italy in the form of a cooperative (*cooperative sociale*) and was called a social cooperative. Very soon, the establishment of social enterprises has begun in other European countries (Raičević & Glomazić, 2012, p. 7).

Initially, social enterprises were founded and financed by the state, but very quickly members of civil society (citizens, informal groups, associations, etc.) organized themselves. They independently established social enterprises in various legal forms in order to enable employment of people who were long-term unemployed and facilitate their inclusion in social flows (Hjorth, 2013; Monzón & Chaves, 2017), or offered goods/services to the most vulnerable social groups (children without parental care, people older than 70, homeless people, people with special needs, etc.), at relatively low prices or completely free of charge, and facilitated overcoming the institutional vacuum (Kolin & Petrušić, 2008).

These individual initiatives included finding new and original ideas for solving social problems, starting a business while providing all the necessary resources and bearing the risk of failure of such business. In other words, they had all the elements of entrepreneurial activity, so they began to be considered as a form of entrepreneurship (Austin et al., 2006). Unlike traditional entrepreneurial ventures who were aimed at making a profit, these initiatives were aimed at solving social problems (Certo & Miller, 2008). Also, unlike traditional entrepreneurs who employed the most productive workforce, these entrepreneurial initiatives gave preference to members of hard-to-employ social groups (Mair & Marti, 2006; Austin et al., 2006). Since, the elements of traditional entrepreneurship were applied in the social sphere, the term social entrepreneurship appeared (Zahra et al., 2009; Elkington & Hartigan, 2008).

The benefits of implementing an individual entrepreneurial initiative in the social sphere, to solve social problems, were noticed by many international institutions, and hence they have started working on its promotion and development by implementing incentive measures (Hjorth, 2013). These measures have resulted in the emergence of a large number of social enterprises and entrepreneurs who are focused on solving social problems (EC, 2013). The diversity of social problems resulted in establishment of social enterprises with very different social missions. Among them, social enterprises in the

field of ecology stand out. The increase in the number of social enterprises in the field of ecology has led to the emergence of a new concept called sustainable entrepreneurship.

1.2. The development of sustainable entrepreneurship

Sustainable entrepreneurship implies "discovering, creating and using entrepreneurial opportunities that contribute to the sustainability of the environment" (Groot & Pinkse, 2015, p. 634). Sustainable entrepreneurs are motivated to have a positive impact on complex and often interrelated social and environmental issues, such as climate change, nuclear radiation, unequal access to health care and education, poverty and long-term unemployment (York et al., 2016).

According to Hockerts and Wustenhagen (2010), sustainable entrepreneurship originated in the field of social entrepreneurship as a concept that solves a group of social problems related to the environment by offering environmentally sustainable "green products" (such as waste recycled products, electricity from renewable sources, etc.). Social and sustainable entrepreneurship share focus on solving social problems and strive to increase the quality of life for the benefit of others, unlike commercial entrepreneurs whose goal is to make a profit (Groot & Pinkse, 2015; Santos, 2012; Schaltegger & Wagner, 2011). Also, the common goal of social and sustainable entrepreneurs is to employ members of marginalized social groups, as opposed to commercial entrepreneurs who employ the most productive workforce (Dacin et al., 2010).

Despite many common features, social and sustainable entrepreneurship differ in many aspects, including the domain of social goals. Social entrepreneurs have primarily the goal of increasing social and economic equality in society, by creating various forms of social benefits through solving social problems, such as increasing access to health care or providing sanitation and water in areas where it is needed (Thompson et al., 2011). Whereas, environmental entrepreneurs want to protect the natural environment or recover natural ecosystems (York & Venkataraman, 2010). They do so in a for-profit context that combines the creation of environmental and economic value (York et al., 2016).

Sustainable entrepreneurs explicitly focus on a combination of social, environmental, and economic goals (Shepherd & Patzelt, 2011) and formulate this as "preserving nature and communities in search of opportunities to create future products and services, with profits largely reduced to economic and non-economic the gains of individuals, the economy and society". As such, sustainable entrepreneurs are of great importance to the community (they help solve the chosen environmental problem, often employ members of hard-to-employ groups and organize business in an economically sustainable way).

Schaltegger and Wagner (2011) indicate that the survival of a company in the environmental sphere depends on the success of balancing the rational use of resources (to gain a competitive advantage) and the success in solving the chosen environmental problem/characteristics of a green product (to gain the trust of local stakeholders and built legitimacy in society). In other words, the survival and success of sustainable entrepreneurs are conditioned by the action of a large number of economic and social factors.

2. Methodology

2.1. The development of hypotheses related to the success factors of sustainable entrepreneurship

Sustainable entrepreneurs introduce eco-innovation to make it easier to solve environmental problems, often employ hard-to-employ people, and at the same time strive to make a profit to make their business economically viable (Groot & Pinkse, 2015; Dean & McMullen, 2007). The presence of dual goals (economic and environmental (social)) also creates additional challenges compared to commercial entrepreneurs. Also, a larger number of support forms can be an incentive for the development of sustainable entrepreneurship.

Previous research shows that financial incentives have a great influence on starting new businesses (Stefanović et al., 2013). Lack of capital to start a business is one of the most serious barriers for entrepreneurs. Barriers of a financial nature are even more pronounced in social entrepreneurship (Dorado, 2006; Zahra et al., 2009) and sustainable entrepreneurship (Groot & Pinkse, 2015; Dean & McMullen, 2007).

With regard to social entrepreneurship, several studies have shown that social entrepreneurs face a much greater number of difficulties in obtaining financial resources compared to commercial entrepreneurs (Dorado, 2006; Purdue, 2001; Sharir & Lerner, 2006). First of all, the return on investment in social enterprises is difficult to estimate (because profit is not primary, as in commercial enterprises), which makes it difficult or impossible for social entrepreneurs to access the capital market (Zahra et al., 2009). When it comes to sustainable entrepreneurs, the situation is very similar. For example, a survey in the UK led by Social Enterprise shows that funding is perceived as a strong barrier to the growth of sustainable entrepreneurship (Leahy & Villeneuve-Smith, 2009).

In addition to difficulties with the lack of standardized measures for evaluating results, similar to social entrepreneurs (Zahra et al., 2009), sustainable entrepreneurs are hindered in attracting capital due to significant spillovers of values resulting from the existence of positive externalities (Dean & McMullen, 2007). Positive externalities create significant and desirable social gains. This problem, called the double external problem (Rennings, 2000), is particularly relevant when considering natural resource and environmental issues (Jaffe et al., 2005). As a result, favorable sources of funding and grants can be extremely important for the development and creation of "green products". In this sense, our hypothesis is:

H1: Financial incentives have the greatest impact on starting and developing a business in the environmental sphere.

In addition to financial barriers, entrepreneurs face a large number of non-financial ones, such as: prevailing industrial norms, that make it difficult to access the market; administrative procedures, that slow down and increase the cost of starting a business; legal regulations and their compliance, that affect unfair competition; and the like (Groot & Pinkse, 2015; Hockerts & Wustenhagen, 2010).

Market access has a great impact on business development in the environmental sphere (Hoogendoorn et al., 2019). If a company is established in social protection or service industries, barriers to market entry are generally low, as capital investment

is usually modest and often does not require a highly skilled workforce, competition generally does not benefit from economies of scale, nor does it have well-known brands and loyal consumers. Thanks to that, sustainable entrepreneurs can relatively easily attract consumers and access the market.

However, starting a business in other industries (manufacturing, energy, construction) can encounter numerous barriers related to: the use of public goods (nature parks, protected ecological habitats, etc.), externalities effects, the monopoly power of public enterprises (Dean & McMullen, 2007; Groot & Pinkse, 2015; Pacheco et al., 2010). Also, certain barriers can be created by the lack of information important for the economic viability of future business (for example, the cost of using certain natural resources, their exhaustion, unclear property rights over certain resources and conditions of their use, etc.), which discourages their decision to start a sustainable business (Cohen & Winn, 2007). Adequate support related to market access, attracting consumers and retaining them can have a huge impact on business development. In this sense, our next hypothesis is:

H2: Assistance in identifying potential markets or customers has a significant impact on the sales (placement) of "green products" and the development of sustainable entrepreneurship.

The next factor that has a great impact on the development of companies in the field of ecology is the knowledge and experience related to the development of the "green product" (Edelman & Yli-Renko, 2010; De Marchi, 2012). Also, in this area there may be very complex administrative procedures when starting a business. Starting a business in some environmental areas, such as the use of natural resources and renewable energy sources, requires a huge number of permits and approvals (Marin et al., 2015). In countries where the number of administrative procedures is large, this can be an extremely big barrier, as it increases the time and cost of starting a business (Rizos et al., 2015). Therefore, technical support for the development of products, services and production processes and assistance in resolving administrative procedures can be of great importance for the development of business in the field of ecology. Accordingly, our next hypothesis is:

H3: Technical support for the development of products, services and production processes and assistance in resolving administrative procedures can be of great importance for the development of business in the field of ecology.

Sustainable entrepreneurs help solve the problems of their social community, give a certain contribution to society, and hence, they expect some support from the same social community in promoting their products (Pacheco et al., 2010). Promoting "green products" raises the awareness of the population (potential consumers) about the role and importance of sustainable entrepreneurship and encourages the purchase of "green products", whose prices are usually not low (due to the large share of labor costs, because many jobs are done manually) (Hansen & Schaltegger, 2013). Also, promotion organized by local authorities can influence the trust of the population, potential consumers, towards the products and services of sustainable entrepreneurs, which can be of great importance in the initial period (Dean & McMullen, 2007; Groot and Pinkse, 2015; Pacheco et al., 2010). Our last hypothesis is:

H4: Consultancy services for marketing or distribution have a significant impact on the development of sustainable entrepreneurship.

2.2. Model and variables

The Flash Eurobarometer data from 2015 are used for the analysis. The sample includes 37 countries: The United States, 28 EU member states and eight non-EU European countries (EC, 2015). The list of countries is presented in Table 1.

Table 1: List of countries included in the survey

No.	Country	No.	Country	No.	Country
1	Belgium	15	Luxemburg	29	Turkey
2	Bulgaria	16	Hungary	30	Croatia
3	Czech Rep.	17	Moldavia	31	Macedonia
4	Denmark	18	Netherlands	32	Montenegro
5	Germany	19	Austria	33	Serbia
6	Estonia	20	Poland	34	Albania
7	Ireland	21	Portugal	35	Island
8	Greece	22	Romania	36	Norway
9	Spain	23	Slovenia	37	USA
10	France	24	Slovakia		
11	Italy	25	Finland		
12	Cyprus	26	Sweden		
13	Lithuania	27	Ukraine		
14	Latvia	28	Great Britain		

Source: Flash Eurobarometer 426: SMEs, Resource Efficiency and Green Markets. Report https://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/Survey/getSurveyDetail/instruments/FLASH/surveyKy/2088/p/2

There were 13,114 companies in the sample, of which 201 (1.5%) were large companies, medium-sized companies participated with 3.5%, small companies with 16%, while entrepreneurs accounted for 79% (of which as many as 83% were one-person companies).

The number of entrepreneurs and SMEs offering a "green product" is taken as a measure of sustainable entrepreneurship. These companies accounted for 28.24%. Companies that plan to introduce a "green product" accounted for 7.7% (3,453) while the remaining 64% were commercial companies that do not plan to introduce "green products". The analysis was done only on a sample of sustainable companies and entrepreneurs. The structure of sustainable enterprises and entrepreneurs is presented in Table 2.

Table 2: Sample structure of sustainable enterprises and entrepreneurs by size

Category	Participation in %	Number
Entrepreneurs	79	2,728
Small-sized enterprises	16	552
Medium-sized enterprises	3.5	121
Large companies	1.5	52
Total	**100**	**3,453**

Source: Flash Eurobarometer 426: SMEs, Resource Efficiency and Green Markets. Report https://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/Survey/getSurveyDetail/instruments/FLASH/surveyKy/2088/p/2

Entrepreneurs' perception about the support measures, which can contribute to the development of their business, is analyzed. First, entrepreneurs were interviewed about the way in which they provided resources and competencies for the development of "green products" in the previous period. Only 23% (767) of entrepreneurs and SMEs stated that they used external support, while the remaining 77% used their own resources and competencies to develop "green products". The forms of external support used by sustainable entrepreneurs and SMEs are shown in Table 3.

Table 3: Forms of external support used by sustainable entrepreneurs and SMEs

Forms of external support	Number	Structure
Public funding such as grants, guarantees or loans	92	12%
Private funding from a bank, investment company or venture capital fund	115	15%
Private funding from friends or relatives	23	3%
Advice or other non-financial assistance from public administration	100	13%
Advice or other non-financial assistance from private consulting and audit companies	176	23%
Advice or other non-financial assistance from business associations	207	27%
Other	54	7%
Total	**767**	**100%**

Source: Flash Eurobarometer 426: SMEs, Resource Efficiency and Green Markets. Report https://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/Survey/getSurveyDetail/instruments/FLASH/surveyKy/2088/p/2

2.3. Results and discussion

Measures of descriptive statistics for perceived barriers and sustainability are presented in Table 4.

Table 4: Descriptive statistics

	Total	Mean	Min	Max
1. Number of entrepreneurs and SME	**12,011**			
1. Offer green product	3,392	107	16	208
2. Don't offer green product, but plan to introduce it	927	34	4	61
3. Don't plan to introduce green product	7,742	223	49	397
2. Forms of support	**3,392**			
a) Financial incentives for developing products, services or new production processes	1,183	52	4	97
b) Assistance in identifying potential markets or customers	1,069	38	3	69
c) Technical support for the development of products, services and production processes	939	42	0	84
d) Consultancy services for marketing or distribution	764	32	1	64

Source: Flash Eurobarometer 426: SMEs, Resource Efficiency and Green Markets. Report https://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/Survey/getSurveyDetail/instruments/FLASH/surveyKy/2088/p/2

Out of a total of 12,011 surveyed entrepreneurs and SMEs, 3,392 (26%) currently offer "green products", 927 SMEs (7%) plan to introduce "green products" in the next 2 years, while 7,742 do not plan to introduce "green products" in the near future. The highest number of SMEs and entrepreneurs (SMEEs) offering "green products" was 208, in Austria and the lowest in Montenegro, only 16. The largest number of SMEEs not planning to introduce "green products" was in Hungary 377.

Major problems for SMEs are limited financial resources and difficulties in securing resources for funding eco-innovation. As financial and other resources have to be provided and invested well before generating revenue, SMEs are forced to provide capital to finance environmental innovations from external sources. Another problem that builds on the previous one is the difficulty for SMEs to access the capital market, and hence, innovations are most often financed through bank loans or risk capital funds. Additionally, innovation financing through bank loans is generally unsatisfactory due to the high risk and unfavorable conditions for borrowing funds (Krstić & Ivanović-Đukić, 2011). For these reasons, SMEEs rarely decide to implement environmental innovations.

However, financial incentives would significantly affect the greater implementation of environmental innovations. The largest number of sustainable entrepreneurs 1,183 (35%) believe that financial incentives can have a significant impact on the development of the "green product", which is in line with our first hypothesis. Among them the largest number of sustainable entrepreneurs is from Ireland (97), and the smallest from Albania.

Also, a large number of sustainable entrepreneurs (1,069) believe that assistance in identifying potential markets or customers can have a significant impact on the development and marketing of the "green product", which is in line with our second assumption. The greatest importance is given to this factor in Ireland (69), and the least (3) in Albania, Macedonia and Montenegro.

The situation is similar in the area of technical support for the development of products, services and production, where 939 sustainable entrepreneurs believe that this

measure can be important for the development of their business. The highest number of SMEs is in France (84), and the lowest in Albania (0). Although, some SMEs are willing and able to adopt sustainable practices, they generally face a lack of certain resources, i.e. skills shortages and limited knowledge. Lack of appropriate skills and expertise usually prevents entrepreneurs from acting in the field of eco-innovation, even when they are aware that better environmental performance can lead to improved competitiveness. Free technical assistance can help SMEs ensure their initial engagement in green practices (OECD, 2015).

Finally, the smallest number of sustainable entrepreneurs gives importance to advisory support in the field of marketing and distribution (764, i.e. 23%). The highest number is in Austria and Finland (64), and the lowest in Serbia (1). Several studies conducted in the UK have shown that SMEs mainly use the advice of their accountants in most areas of their business (Spence et al., 2012). Accountants are the ones who routinely give advice to SMEEs not only on taxation and financial management, but also on a number of organizational issues, marketing, and strategic planning (OECD, 2015).

Conclusion

The concept of sustainable entrepreneurship, which refers to starting new businesses in the environmental sphere to solve a certain environmental problem in an economically sustainable way, is explained (Cohen & Winn, 2007). Sustainable entrepreneurs have double goals – economic and environmental. For that reason, establishment and development of their business are influenced by a much larger number of factors compared to commercial entrepreneurs.

Based on Flash Eurobarometer (2015) data for 12,011 entrepreneurs and SMEs in 37 countries offering a "green product", the impact of various factors that may influence the establishment and development of business in the environmental sphere was examined. According to the perception of sustainable entrepreneurs, the biggest impact on starting and developing a business can have: financial incentives, measures related to market access, technical assistance in the development of "green product", and advisory assistance in the field of marketing and distribution of "green product".

In order to encourage the development of sustainable entrepreneurship and increase the number of SMEEs introducing "green product", it is necessary to implement various measures. The establishment of sustainable incubators is a measure that can stimulate the establishment of new companies in the environmental sphere. The incubator can offer various consulting services related to the development of "green product", its distribution, and sale. According to the opinion of entrepreneurs who currently offer "green product" these support forms would be the most useful. Also, it is desirable to offer a large number of financial incentives (in the form of subsidies, grants, favorable sources of funding, guarantees, etc.), for the development and commercialization of "green products".

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THE IMPORTANCE OF RENEWABLE ENERGY SOURCES FOR SUSTAINABLE DEVELOPMENT

Abstract

The accelerated development of the global economy is leading to increasing consumption of natural resources. The exploitation of resources is moving at an accelerated pace, while their availability is decreasing. The biggest problem is the depletion of non-renewable and limited resources that are the carriers of the raw material base of energy and manufacturing industry, which calls into question the preservation of energy stability and efficiency at the global level. Uncontrolled industrial growth, accompanied by increasingly intensive depletion of non-renewable natural resources, especially fossil fuels, has caused enormous pollution of the environment and the entire planet. In the conditions of depletion of natural resources, negative climate changes accompanied by global warming and a serious threat to the survival of life, it is necessary to adopt and implement the concept of sustainable development. The concept of sustainable development explicitly aims to achieve optimal economic results, while preserving and improving the environment and the social component of development. Natural resources play an extremely important role in achieving economic growth and development. The aim of this paper is to point out the importance of renewable energy sources for achieving sustainable development. It is necessary to investigate the importance of renewable and non-renewable natural resources, as well as the factors that affect their exploitation, with the aim of successfully implementing the concept of sustainable development.

Key words: *sustainable development, renewable and non-renewable natural resources, optimal use of natural resources, environmental protection*

JEL classification: *Q20, Q40, Q50*

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ЗНАЧАЈ ОБНОВЉИВИХ ИЗВОРА ЕНЕРГИЈЕ ЗА ОДРЖИВИ РАЗВОЈ

Апстракт

Убрзани развој глобалне економије доводи до све веће потрошње природних ресурса. Експлоатација ресурса креће се убрзаним темпом, док се њихова расположивост све више смањује. Највећи проблем представља исцрпљивање необновљивих и ограничених ресурса који су носиоци сировинске базе енергетике и прерађивачке индустрије, чиме се доводи у питање и очување енергетске стабилности и ефикасности на глобалном нивоу. Неконтролисани индустријски раст праћен све интензивнијим исцрпљивањем необновљивих природних ресурса, посебно фосилних енергената, проузроковао је енормно загађење животне средине и читаве планете. У условима исцрпљивања природних ресурса, негативних климатских промена праћених глобалним загревањем планете и озбиљним угрожавањем опстанка живота, неопходно је усвајање и имплементирање концепта одрживог развоја. Концепт одрживог развоја експлицитно поставља за циљ постизање оптималних економских резултата, уз истовремено очување и унапређење животне средине и социјалне компоненте развоја. Природни ресурси имају изузетно важну улогу у остваривању економског раста и развоја. Циљ овог рада је укаже на значај обновљивих извора енергије за остваривање одрживог развоја. Неопходно је истражити значај обновљивих и необновљивих природних ресурса, као и фактора који утичу на њихову експлоатацију, а са циљем успешне имплементације концепта одрживог развоја.

Кључне речи: *одрживи развој, обновљиви и необновљиви природни ресурси, оптимално коришћење природних ресурса, заштита животне средине*

Introduction

Classical economic theory analyses economic growth based on the observation of several key factors of economic policy, including savings, investments, technical-technological research and development, education, population growth, free trade, etc. In traditional economic thought, an important indicator of economic growth and development is precisely the size and movement of gross domestic product.

Faced with the real problem of depletion of non-renewable and limited resources, global warming of the planet and general pollution and endangerment of the environment, there have inevitably been changes in the understanding of economic growth and development. In addition to economic growth, environmental protection is equally important, above all, from the point of view of corporate responsibility. We are witnessing a growing interest in the efficient use of natural resources and environmental protection. In the fields of economic theory and policy, efforts are being made to harmonize economic and environmental interests and to find more adequate instruments for encouraging sustainable social development.

Radukić & Petrović-Ranđelović (2019) point out that "natural resources are the basis for the development of human society for at least three reasons. First, the availability

of natural resources is the basis for the development of many human activities. Second, the environment is a complex asset that provides numerous services, but also a type of special asset that provides human existence. Third, the environment performs some other indispensable functions that are vital to ensuring quality of life, such as stabilizing the global climate or filtering harmful ultraviolet radiation from the stratospheric ozone layer" (pp. 34-35). Furthermore, these authors indicate that the one of the most important preconditions for achieving sustainable development is economically efficient management of natural resources.

Thus, in order to apply the principles of sustainable development, it is necessary to monitor environmental changes caused by economic activity, i.e. economic activity must be sustainable. On the one hand, there is no possibility of increasing the amount of non-renewable natural resources, i.e. renewal, so the problem of the optimal use of these resources is reflected in finding the optimal rate of depletion, i.e. optimal rates of resource exploitation. On the other hand, the economic analysis of renewable resources indicates that the economically efficient use of resources should be compatible with environmental sustainability.

However, free access to these resources leads to their overexploitation. In the case of renewable resources, it is important that exploitation takes place at a level that will not jeopardize the renewal of resources and that a sustainable rate of return is achieved. A combination of regulatory and market mechanisms is needed to simultaneously achieve sustainable yields and renew depleted resources. Achieving the concept of sustainable development is possible through the rational use of non-renewable and the increased use of renewable natural resources. Therefore, the analysis of the role of resources in the process of sustainable development is very important.

The subject of research of this paper is to consider the importance of the use of renewable natural resources, primarily renewable energy sources and their place and role in achieving the concept of sustainable development. The group of renewable resources includes natural or biological funds (forests, fisheries fund, etc.), which belong to the group of depletable resources, and energy flows (solar energy, hydropower, wind energy, etc.), which are considered inexhaustible resources. Having in mind the problem of limited non-renewable natural resources, as a potential limitation of the future growth and development of modern economies, the alternative would be renewable energy. Biological funds have the possibility of natural growth or quantitative regeneration, so that their use can be analysed from static and dynamic aspects in order to achieve the optimal rate of exploitation and to prevent the uncontrolled use of resources. There is a practically unlimited possibility of using energy sources, so the goal is to increase the use of these sources as much as possible in the future.

Energy is a fundamental production input in modern economy. At the same time, the accelerated development of world economy is accompanied by increasing energy consumption. It is inevitable to increase energy production in order to meet the growing needs of humanity.

Classical energy sources are based on the use of non-renewable natural resources. Certainly, fossil fuels (coal, oil, natural gas) are of the greatest importance, and they took millions of years to create. Given that these are non-renewable natural resources, their quantity is quantitatively limited and humanity is faced with a real problem of potential depletion of the reserves of these and other non-renewable natural resources. Also, a big

problem is the fact that the use of non-renewable natural resources as energy sources greatly pollutes the already disturbed environment.

Renewable energy sources represent the so-called "clean energy sources". Their use contributes to the preservation of the environment and the satisfaction of energy needs, which is the basic goal of the concept of sustainable development.

The positive characteristics of renewable natural resources are the following: renewability – the sources are quantitatively unlimited, they represent the so-called clean energy sources, environmental protection, reduction of carbon dioxide (CO2) emissions into the atmosphere, gradually becoming competitors in non-renewable energy sources. The main advantage of renewable energy sources over non-renewable ones is their renewables.

The structure of this paper is as follows. After introductory considerations, the second part gives a brief review of renewable energy sources as a factor of sustainable development. Possibilities of using alternative energy sources in the Republic of Serbia are considered in the third part of the paper, followed by concluding remarks.

1. Renewable energy sources as a factor of sustainable development

Energy stability and efficiency are crucial for successful functioning of modern economies. Renewable energy sources (solar energy, wind energy, water flow energy, biomass, etc.) are gaining in importance with a clear tendency to increase their share in total energy production and consumption.

Solar energy is one of the most important renewable energy sources. Starting from the total annual needs for electricity at the level of the entire planet, the solar energy that reaches the Earth in one year is about 10,000 times higher than the total planetary energy needs. This fact clearly indicates the potential of solar energy and possibilities of satisfying the energy needs of humanity.

Approximately 1kW/m2 of insolation can be obtained on the Earth's surface under optimal conditions. The values of insolation (the length of solar radiation during the day) depend on a number of factors: location, season, climate, etc. The duration of insolation and the inflow of solar energy are not proportional, because part of solar energy is lost through the passage of the sun's rays through the atmosphere and the absorption of oxygen, carbon dioxide and ozone. Also, radiation energy itself is dissipated by passing through the atmosphere. The use of solar energy, as an energy source, implies the use of solar energy when it reaches the Earth.

This energy represents a huge energy potential. Namely, if we compare the energy of the Sun when it reaches the Earth with the total coal reserves in the world, it is about 170 times higher. Due to the great potential of solar energy, it is necessary to consider the techniques of its use. The use of solar energy implies the following direct principles of using solar energy (Energetski portal, 2020): passive techniques, solar collectors (conversion of solar energy into heat), photovoltaic cells (direct conversion of solar energy into electricity) and focusing solar energy (for use in large power plants).

Passive techniques are the simplest way to use solar energy. A common example is the use of solar energy to heat a greenhouse space. The passive technique of using solar

energy means that the process of using solar energy is based on spontaneous natural processes. There is no electricity investment and this technology is 100% environmentally friendly. With such a passive technique, combined with active solar technology, heating systems ideal for residential areas can be constructed. Solar collectors absorb solar energy and convert solar energy into heat. These systems contribute to the preservation of the environment and achieve significant energy savings. The degree of conversion of solar energy into heat is extremely high (and ranges up to 70%). Extremely large economic savings can be achieved by combining water and air heating through solar collectors. The smallest collectors are about $2m^2$ in size. They are enough to heat water for the average household. It is common for solar energy absorbed in this way to be combined with some other energy source to ensure the availability of hot water throughout the year.

It could be noticed that one of the most economical ways of using solar energy for water heating is achieved through solar collectors, primarily in households. Photovoltaic (solar) cells enable the direct conversion of sunlight (energy) into electricity. These cells function on the principle of the photoelectric effect. Photovoltaic cells are very thin plates of silicon crystals with an admixture of arsenic. Exposed to sunlight, they act as a semiconductor junction. The solar cell industry is one of the fastest growing industries in the modern world. However, the disadvantage is the small degree of the use of solar energy, only about 15%. This industry was developed in Japan and then in other parts of the world. In order to achieve a significant percentage of the use of solar energy in the production of electricity, at least two more decades of technical and technological progress and the improvement of photovoltaic cells are necessary. Solar energy is focused with the help of a mirror or lens. Otherwise, it is used to drive large generators. This way of using solar energy requires a large space for the power plant. For that reason, they are most often built in deserts, where the sun's radiation is the largest and most pronounced.

The data from the Ministry of Mining and Energy (2020) show that the Republic of Serbia has a significant solar potential that is greater than in most European countries. However, this energy potential is completely untapped, because solar electricity is very expensive and thus uncompetitive. So far, solar energy in the Republic of Serbia has been mostly used for heating water in households. The utilization of this energy for the production of electricity is very small, so this renewable energy source in our country is practically unused.

As a source of energy, solar radiation is more favourable than wind energy in the sense that it is more predictable, but it is less favourable in the sense that there is no solar radiation during the night. Also, during the winter, the sun's radiation is less intense, and energy consumption is the highest in that period. Since there is no solar radiation during the night, plants that use solar energy can only work during the day, so additional plants would have to be built to ensure the accumulation of energy and the supply of the same during the night.

Wind energy is used to produce electricity with the help of windmills that are set up and distributed so as to form the so-called "wind parks". When using wind energy as an alternative energy source, it is necessary to perform detailed spatial microlocating before deciding to build a wind farm. In order to assess the wind energy potential in an area, it is necessary to perform a detailed analysis of the type of wind and wind speed. There must be adequate speed of wind in order to design a wind farm at the rotor

axis height. With aeolian power plants, there is a high reliability of the plant, also the production is completely ecological and there is no environmental pollution. However, the disadvantages are high construction costs and variability of wind speed. For this reason, the continuity of energy supply cannot be guaranteed.

Thus, production is of a variable nature and cannot be fully predicted. Also, the price of electricity obtained in this way is quite high, up to 10 times higher than that produced in thermal power plants. The United States and the European Union have compiled atlases of their wind resources based on detailed wind studies. These atlases were made for a wind speed of 45m above the ground. During the last decade, the popularity of using wind energy to generate electricity has grown rapidly. Great popularity of this renewable energy source makes this production an equal member of the electricity system of certain European countries. Denmark and Germany represent a typical example. The estimates of the Hydrometeorological Institute of Serbia (2020) are that the Republic of Serbia has a significant potential for aeolian energy, especially in some parts of Vojvodina and Eastern and Southern Serbia.

Energy of water currents (hydropower), as an alternative energy source, includes all possibilities of obtaining electricity from: inland watercourses (rivers, streams, and canals), sea waves, tides, internal energy of the sea and the ocean, and geothermal energy. Hydropower has been the most important renewable energy source in terms of commercial use so far. The electricity produced using hydropower represents about 96% of the energy produced by all renewable sources in the Republic of Serbia (Nacionalna strategija održivog korišćenja priordnih resursa i dobara, 2012). Electricity is produced in hydroelectric power plants using hydropower. Modern hydroelectric power plants have an extremely high degree of water energy utilization and even about 90% of water energy can be converted into electricity. Small hydropower plants with the capacity of 5–10 MW do not have a significant impact on the environment. However, in large hydropower plants, where entire areas around hydropower plants may be submerged, there is a significant impact on the environment. Due to the flooding of large areas, submerged plants may go rotten and methane may be released, and there is also local climate change, etc.

For the Republic of Serbia, the most important renewable energy resource is the hydro potential. It is estimated at 17,000 GWh per year. In Serbia, there are about 1,000 locations attractive for the construction of small hydropower plants (ESCO Beograd, 2020).

Also, the movement of water under the action of the Moon and the Sun creates the energy of tides and it can be used as a renewable energy source. It is not possible to produce electricity only by using tides. It is necessary to combine it with another way of obtaining electricity. Namely, the energy obtained by using tides is not constant and thus cannot be an autonomous system of obtaining electricity. Power plants that use tidal energy to generate electricity must be connected to the power system, where there are power plants that have the total power several times larger than a power plant that uses tidal energy. Economic analyses show that only 2% of the total tidal energy is usable, and in real production only about 20% of theoretically estimated production possibilities can be used in the most favourable circumstances (Nacionalna strategija održivog korišćenja prirodnih resursa i dobara, 2012).

Geothermal energy can be used for heating and electricity generation. Geothermal energy comes from the heat of the Earth, which is located in porous rocks. The advantages

of this energy source are both economic and environmental. From an economic point of view, the costs of energy exploitation are the lowest. Also, exploitation does not ecologically damage the environment and this energy is ecologically clean. Geothermal energy is one of the most expected forms of renewable energy. In America, large funds are being invested in the research of geothermal sources and the development of new technologies for the exploitation of geothermal energy. The estimated potential of this energy for Serbia shows that it could replace about 3 million tons of oil a year (Gulan, 2020). Regarding the natural phenomena in Serbia, 160 natural sources with over 15 degrees Celsius have been registered (Matić, 2018).

There are several hundred geothermal water wells on the territory of the Republic of Serbia. For now, they are used primarily for spa tourism and bottling. However, the use for heating and electricity production is insignificant.

Biomass represents a renewable energy source. Biofuels are obtained from certain vegetable crops (oilseed rape, soybean, and sunflower vegetable oils) and they are an ecological alternative to fossil fuels because they give less greenhouse effect, release less carbon dioxide and other harmful gases. However, the areas used for planting these crops reduce the area of agricultural land and thus directly affect the possibility of food production.

In modern conditions, humanity is facing increasing needs for both food and fuel. The use of biomass (wood biomass - briquettes, sawdust, twigs, logs and agricultural biomass - straw, manure, liquid manure, and residues of agricultural and field crops) as a renewable energy source has a number of benefits, but it is extremely important that it allows obtaining energy that can be redistributed to other areas. Briquettes are produced from wood residues. The use of briquetting provides great opportunities, primarily in agriculture, forestry and wood industry. The production of biogas from liquid manure is practiced in the United States and Austria. Liquid manure is collected on large farms, and it is possible to get electricity or heat. This type of biogas production has not been practiced in the Republic of Serbia. Otherwise, biomass represents the most significant energy potential in our country. The Republic of Serbia has 5.06 million hectares of agricultural land, out of which 71% is used intensively (in the form of arable land, orchards and vineyards), as well as 2.25 million hectares of forests, which makes 29.1% of the total area (Strategija poljoprivrede i ruralnog razvoja Republike Srbije za period 2014-2024. godine, 2014).

2. Possibilities of using alternative energy sources in the Republic of Serbia

The use of renewable energy sources contributes to increasing energy stability, i.e. the stability in energy supply, which is extremely important especially in situations of energy crises. Also, the use of renewable energy choices contributes to the security of national economies, increases energy efficiency, but also improves their competitive performance.

Alternative energy sources are used more and more, but their share in total energy production is still small. It is for this reason that the EU has set a target that 20% of electricity must come from renewable energy sources (Milenković, 2017). By signing the

Agreement on the Establishment of the Energy Community of Southeast Europe and the EU in 2006, the Republic of Serbia accepted the obligation to implement the prescribed directives related to the use of renewable energy sources. Also, in 2007, the Republic of Serbia ratified the Kyoto Protocol. The Energy Development Strategy of the Republic of Serbia envisaged that by the end of 2015, the share of renewable energy sources in total final consumption would increase to some 1.5% -2%. Otherwise, the potential of energy from renewable energy sources in the Republic of Serbia is such that it could meet about 25% of the annual needs of the population and the economy. The Republic of Serbia has a lot of quality renewable energy sources (solar energy, hydropower, wind energy, geothermal energy). To achieve the increased use of renewable energy sources, as a strategic goal of the Republic of Serbia, it is necessary to rely on those energy sources that have the greatest potential, namely the following energy sources: biomass, small watercourses, wind energy, geothermal energy and solar energy. Serbia has a total of about 4 million toe (tons of oil equivalent) of renewable energy potential. The potential of solar energy is about 640,000 toe, geothermal energy about 185,000 toe, wind energy about 160,000 toe, small hydropower plants about 440,000 toe (or 1747 GWh), biomass 2.68 million toe (out of which agriculture 1.6 million toe, and forests 1 million toe) (Djajić, n.n.).

Economically developed countries have already achieved significant results in the use of renewable energy sources. According to the data of the Euractiv portal (2020), in the EU member states, in the first half of 2020, the amount of electricity produced from renewable sources exceeded the amount of electricity produced from non-renewable sources. About 34% of electricity was obtained from fossil fuels and about 40% of electricity from solar, aeolian and hydropower. In Denmark, about 64% of electricity is produced from aeolian and solar energy. In the EU member states, the use of fossil fuels for electricity generation has significantly decreased. For example, in Spain, the use of coal for electricity production has been reduced by about 60% and in Portugal by impressive 95%. In the field of using aeolian energy, China has the installed wind power capacity of 221 GW, which in relation to the Republic of Serbia represents 31 times more than the installed power capacity of the entire electric power system of Serbia.

The importance of renewable energy sources was also recognized by the company Apple (2020), which created a business policy company so that it does not use carbon energy in the work of its centres until 2030. The company announced the construction of 200m high wind turbines that should produce 62 Gw/h of energy per year and which, according to the official announcement of this company, would be enough to meet the needs of about 20,000 households, which will be the second largest wind farm in the world.

The power supply in the Republic of Serbia is predominantly from thermal power plants (about 70%) and the rest of the electricity is obtained from hydropower plants. In order to implement the concept of sustainable development in the Republic of Serbia, intensive work has been done in recent years on the integration of renewable energy sources into the electricity system of Serbia. Kovačica wind farm with the installed capacity of 104.5 MW was opened in 2019. As a result, the installed wind capacity increased to 171.6 MW, and about 370 MW is in the construction and trial production phase. At the beginning of 2020, the Electric Power Industry of Serbia announced the planning and construction of a 97.2 MW solar power plant.

In the field of sustainable use of natural resources, the European Union established the Strategy for Sustainable Use of Natural Resources in 2005. This strategy emphasizes the

place and role of the Member States in achieving the objectives set out in the strategy as well as the actions to be taken at the national level. The Republic of Serbia adopted the National Strategy for Sustainable Development of the Republic of Serbia in 2008, and it represents the broadest policy framework in the field of sustainable use of natural resources. The National Emission Reduction Plan (NERP) was adopted on 31st January 2020 with the aim of reducing pollutants originating from old combustion plants. In the Energy Development Strategy of the Republic of Serbia until 2025 with projections until 2030, the Communication "Energy Roadmap 2050" is stated, issued by the European Commission at the end of 2011. It proposed the transformation of the energy sector, which set the goal of reducing greenhouse gas emissions by 2050 from 80% to 95% below the emission levels in 1990.

In the last few years, a whole set of strategic documents in various areas has been adopted, with a large number of them directly related to natural resources. These are strategic documents in the field of agriculture, forestry, energy, introduction of the cleaner production in the Republic of Serbia, etc. However, numerous issues remain open in the field of harmonization of individual solutions from strategic documents with solutions from the National Strategy for Sustainable Development. Serbia must also improve its records on renewable energy sources and take a responsible and cost-effective approach to exploiting the available energy potential provided by renewable energy sources, with the aim of achieving the concept of sustainable development. However, these potentials have not been sufficiently explored and there are no precise studies on the physical and economic estimates of the energy potential of these sources.

Conclusion

Successful implementation of the concept of sustainable development requires the efficient and optimal use of natural resources. Renewable energy sources are "clean" and practically inexhaustible energy sources. The main goal in achieving optimal economic development is to increase the use of renewable energy sources and increase the economic efficiency of their use. The use of these energy sources contributes to the increase in energy stability, the stability in energy supply, which is extremely important especially in situations of energy crises. It also contributes to the security of national economies and thus increases energy efficiency and economic competitiveness.

The Republic of Serbia has a significant solar potential that is higher than in most European countries. However, this energy potential is completely unused because solar electricity is very expensive and thus uncompetitive, and so far solar energy in our country has mostly been used for heating water in households. Over the last decade, the popularity of using wind energy to generate electricity has grown rapidly. The great popularity of this renewable energy source makes this production an equal member of the power system of certain European countries, such as Denmark and Germany.

The Republic of Serbia has a significant potential for aeolian energy, while hydropower has been the most important renewable energy source in terms of commercial use so far. Electricity produced using hydropower represents about 96% of energy produced from renewable sources in the Republic of Serbia. Also, biomass represents a significant energy potential.

Renewable energy sources represent the future of energy and one of the primary goals of sustainable development. Their use is increasing more and more, but their share in the production

of total energy is still small. The potential of energy from renewable energy sources in the Republic of Serbia could meet about 25% of the annual needs of the population and the economy.

The Republic of Serbia must improve its records on renewable energy sources and approach the use of available energy potential responsibly and economically. The economic development strategy emphasizes the use of renewable energy sources as one of the priorities of energy and energy development of the Republic of Serbia. The main aspiration is to achieve the reduction of import dependence and environmental pollution, as well as the improvement of economic development through the increased use of renewable energy sources.

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INTERNATIONAL BUSINESS AND MANAGEMENT IN PANDEMIC-RELATED CONDITIONS[4]

Abstract

The aim of the paper is to give the insight into international business and management in pandemic-related conditions in the first half of 2020. The subject of the paper is the analysis of the impact of the initial pandemic wave on the conditions in which international business and management take place and the risks to which companies are exposed, the ways they react to these conditions regarding the business ventures they give up or undertake, as well as the possibilities of how to cope with the current pandemic conditions. Therefore, the paper consists of three parts which analyze each of these aspects. In the pandemic-related conditions, full of unknowns and declining trends of almost all economic indicators, managers have a significant and additional responsibility to consider all relevant aspects and act accordingly making possibilities to mitigate the effects of a pandemic and to get through it.

Key words: *international business, management, pandemic, COVID-19.*

JEL classification: *F21, F23*

МЕЂУНАРОДНО ПОСЛОВАЊЕ И МЕНАЏМЕНТ У УСЛОВИМА ПАНДЕМИЈЕ

Апстракт

Циљ рада је да пружи увид у одвијање међународног пословања и менаџмента у условима пандемије у првој половини 2020. године. Предмет рада чини анализа утицаја иницијалног таласа пандемије на услове у којима се међународно пословање и менаџмент одвија и ризике којима су изложене

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компаније, начине на које реагују на ове услове имајући у виду пословне подухвате од којих одустају или које предузимају, као и могућности како да се носе са постојећим условима пандемије. Што се рад састоји из три дела, који анализирају сваки од ових аспеката. У условима пандемије, који обилују непознаницама и трендовима опадања готово свих економских индикатора, менаџери имају значајну и додатну одговорност да размотре све релевантне аспекте и понашају се сходно њима стварајући могућности за ублажавање последица пандемије и њено превазилажење.

Кључне речи: *међународно пословање, менаџмент, пандемија, COVID-19.*

Introduction

International business can be observed through different forms of doing international business operations, including exports, licenses, franchising, joint ventures, and majority-owned affiliate in a foreign market. The form of international business that has had the greatest expansion in the previous thirty years is the establishment of a majority-owned affiliate through undertaking direct investments abroad (FDI). FDI is a form of international capital movements that are important for almost all countries (Stojadinović Jovanović, 2015). This form of business is the most complex, the most expensive, and the most risky. However, as the possibility of making higher profits comes with higher risks, this form of business has achieved the greatest expansion. Flows and volume of this, the most prominent form of international business operations, can be followed and analyzed through flows and volumes of FDI and their different types, primarily greenfield investments, and cross-border mergers and acquisitions (M&A).

Management of international business operations on an ordinary basis is generally more complex than management of business operations within national borders. Additionally, changes of business conditions and environment, especially those of recessions and crisis, make it more complex, risky and uncertain.

Current business conditions and international, as well as national environment, are additionally complicated and disturbed by the global epidemic of coronavirus (COVID-19), that is the COVID-19 crisis. It makes a huge impact on the entire world economy and within it on international business and its management.

1. Current business pandemic-related conditions and risks

Current business conditions are characterized by numerous unknowns and significant slowdowns. "In general, a new turbulent business environment has created a new scenario for the competitive development of companies in the XXI century" (Janjić, Bogićević & Krstić, 2019, p. 14). Additionally, the pandemic conditions have made the environment more complex. The current macroeconomic environment is unpropitious and full of unfavourable movement. The economic disruptions triggered by the pandemic are huge and overall. It is expected that many indicators of global activity recorded the highest decline in the past few decades. It is estimated that the crisis caused by COVID-19

will be the biggest so far, even twice as deep as the last economic and financial crisis from 2007-2008.

Globally, the volume of trade is declining, while gross domestic product tends to slow down. "The World Bank has predicted a decline of world GDP by 5.2% in 2020" (WB, 2020, p. 4). It is expected the significant reduction of economic output in almost every country. World trade also fell sharply in the first half of the year. The volume of merchandise trade shrank by 3% year-on-year in the first quarter (WTO, 2020).

"There are also a 9% year-on-year fall in global production and manufacturing output, fall in value of global merchandise trade by almost 27% in the second quarter of 2020, the largest fall in global commodity process on record (-20.4% between February and March 2020), and the shocking loss of employment – a decline of almost 10.5% in total working hours, the equivalent of 305 million full-time workers" (CCSA, 2020, p. 3) Some economists predict that world unemployment will be the highest since 1965 (Kose & Sugawara, 2020).

In such conditions there are numerous risks (WEF, 2020b) which the companies are dealing with. Prolonged recession of the global economy is estimated to be the highest COVID-19 risk that companies face. This risk is followed by other economic, as well as societal (another global outbreak of COVID-19 or different infectious disease), technological (cyberattacks and data fraud due to a sustained shift in working patterns, as well as breakdown of IT infrastructure and networks), and geopolitical (tighter restrictions on the cross-border movement of people and goods) risks (Table 1).

Beside prolonged global recession, as a top concern for business, the greatest economic risks in terms of the most worrisome for the companies are bankruptcies and industry consolidation, failure of industries to recover, and a protracted disruption of supply chains. The technological risk of cyberattacks and data fraud is the third one among the most worrisome risks for companies, as well as the related eleventh risk of breakdown of IT infrastructure and networks.

Shift in working patterns includes huge application of technology and increased working from home and other remote locations, and therefore raises risks of cyberattacks and data fraud. With the pandemic increase and acceleration, reliance on technology in both every day and business life, has also increased cyberattacks and data fraud risks. Although technology should have the primary role in mitigating and overcoming the COVID-19 crisis, on the other side the pandemic-related conditions have hightened those risks.

Table 1: Top concerns and risks for companies

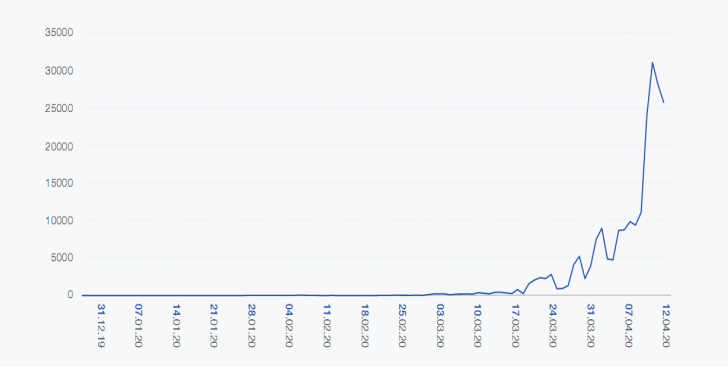
1.	Prolonged recession of the global economy	Economic
2.	Surge in bankruptcies (big firms and SMEs) and a wave of industry consolidation	Economic
3.	Cyber attacks and data fraud due to a sustained shift in working patterns	Tech
4.	Failure of industries or sectors in certain countries to properly recover	Economic
5.	Protracted disruption of global supply chains	Economic
6.	Tighter restrictions on the cross-border movement of people and goods	Geopolitical
7.	Another global outbreak of COVID-19 or different infectious disease	Societal

8.	Economic collapse of an emerging market or developing economy	Economic
9.	Weakening of fiscal positions in major economies	Economic
10.	Sharp increase in inflation globally	Economic
11.	Breakdown of IT infrastructure and networks	Tech
12.	High levels of structural unemployment (especially youth)	Economic
13.	Massive capital outflows and slowdown in foreign direct investment	Economic
14.	Exacerbation of mental health issues	Economic
15.	Sharp underfunding of retirement due to pension fund devaluation	Economic

Source: WEF (2020a). COVID-19 Risks Outlook: A Preliminary Mapping and Its Implications. Geneva. p. 53.

In the first week of April, it can be seen a huge increase in the number of attacks, to an average of 14,000 a day, which is six times the average number of daily attacks when compared to the previous two weeks (Figure 1). And over the second week in April, the average number of daily attacks increased sharply to 20,000 (Check Point Software Technologies, 2020).

Figure 1: Coronavirus-related cyberattacks detected worldwide, December 31st, 2019 to April 14th, 2020



Source: Check Point Software Technologies. (2020). Coronavirus update: as economic stimulus payments start to flow; cyber-attackers want to get their share too. Retrieved July 24, 2020, from https://blog.checkpoint.com/2020/04/20/coronavirus-update-as-economic-stimulus-payments-start-to-flow-cyber-attackers-want-to-get-their-share-too/

The fifth most worrisome aspect for companies is protracted disruption of global supply chains, which have affected companies around the world. The lockdowns and halts in production caused by pandemic in leading economies of China, the European Union and the United States, have had great impacts on production, imports and exports, and reduced the inputs available for global supply chains. Many companies around the world, which supply affected countries, have experienced a decline in orders as demand has fallen.

Among the top ten concerns for companies, there are only one geopolitical and one societal risk. Companies are mostly concerned about the geopolitical risk of disruptions to

business assessing tighter restrictions on the movement of people and goods. Companies are also concerned about societal risk regarding another global outbreak of COVID-19 or other infectious disease.

The coronavirus pandemic could also trigger permanent changes in consumer behavior, which would pose new challenges to businesses. Following the financial crisis, global consumption grew at the slowest pace for any 10-year period on record (WB Open Data, 2020), which is a downward trend that is likely to continue in the current conditions. Businesses can easily face reputational costs and consumer rejection, depending on how they behave in this crisis, especially in relation to employment (WEF, 2020a).

2. Companies' response to the pandemic

At the beginning of the pandemic, companies around the world responded in similar ways. They informed customers whether the business would be suspended and accordingly took measures to protect employees and customers from infection. Furthermore, many companies have sought support from business support organizations, government, and other supporting entities. However, beyond this common reaction, there were differences between companies in response. Some adopted retreating strategies, many were resilient, while some were notably agile.

Many companies reduced employment, sold assets, or took on new debt to cope with COVID-19 crisis. "It can be observed that small export companies were significantly less likely to adopt this kind of approach than those selling only to the domestic market" (ITC, 2020, p. 38).

The most common practice that companies have resorted to was temporary reduction in employment. Furthermore, smaller companies increased online sales, while medium and large companies increased teleworking as they are generally more capable of working from home than smaller companies (Table 2).

In pandemic-related conditions, international business operations have been reduced. This is reflected in the FDI data, and their main types, greenfield investments, and cross-border mergers and acquisitions.

The pandemic conditions have had immediate effects on international business due to reduced FDI by companies. It is predicted that the pandemic conditions will cause a dramatic drop in FDI in 2020, with a further deterioration in 2021. "It is estimated that global FDI flows will decrease in 2020 by up to 40% from their 2019 value, resulting in FDI below $1 trillion for the first time since 2005. FDI is further expected to decline by 5% to 10% in 2021" (UNCTAD, 2020, pp. 2-3).

Companies have reduced their international business operations all over the world across all groups of countries. "According to UNCTAD projections, developed economies will realize negative annual FDI growth rate in 2020 of between -25% and -40%, while developing and transition economies will achieve larger decline of between -30% and -45%" (UNCTAD, 2020, pp. 8-9).

Table 2: The ways in which companies cope with pandemic

Micro companies		Small companies		Medium companies		Large companies	
Temporarily reduced employment	34%	Temporarily reduced employment	42%	Temporarily reduced employment	40%	Teleworking	58%
Online sales	31%	Online sales	25%	Teleworking	38%	Temporarily reduced employment	42%
Customized/new products	20%	Teleworking	25%	Increased marketing efforts	26%	Increased marketing efforts	26%

Source: ITC (2020). SME Competitiveness Outlook 2020: COVID-19: The Great Lockdown and its Impact on Small Business. Geneva. p. 40.

Companies have also reduced their international business operations across all industries. The average growth rate of number of announced greenfield projects, as well as the average growth rate of number of announced cross-border mergers and acquisitions deals has been negative in all sectors: primary, manufacturing, and services. In the first months of 2020, all industries experienced an average decline of more than 20% in the number of newly announced greenfield projects. The same situation is with the number of newly announced cross-border M&A deals, except in primary sector where the average decline was 9% (Table 3).

Table 3: Pandemic impact on FDI projects, early 2020 (in percent)

Industry	Number of project/deals growth rate, monthly average Q1 2020 vs all 2019	
	Greenfield projects	Cross-border M&A deals
Primary	-29	-9
Manufacturing	-38	-22
Services	-23	-21
Total	-30	-21

Source: UNCTAD (2020). World Investment Report 2020. New York and Geneva, p. 6.

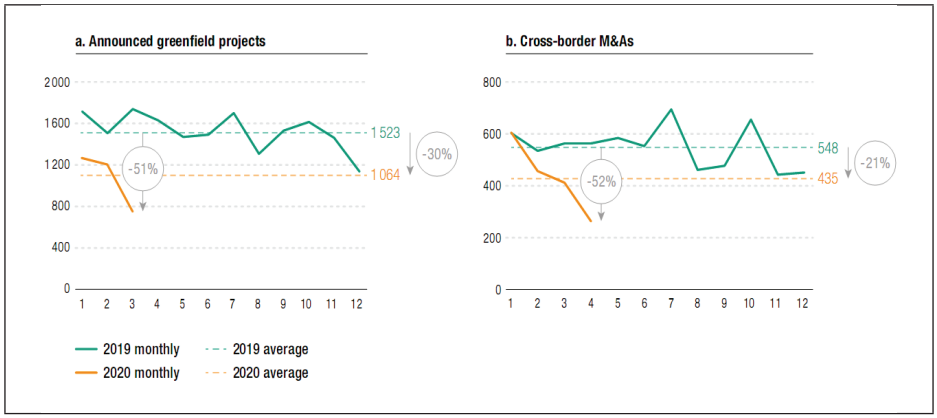
Companies have cancelled a significant number of announced greenfield projects and cross-border mergers and acquisitions deals in the first months of 2020 compared to 2019. The numbers of announced greenfield projects in March and cross-border mergers and acquisitions deals in April decreased by over 50% compared to the 2019 monthly average (Figure 2).

Some companies that have cancelled M&A deals in the period February-April 2020 for pandemic-related reasons are:

- Alimentation Couche-Tard (Canada), which withdrew its plans to acquire the share capital of petrol station operator Caltex Australia for an estimated $5.6 billion (Reuters, 2020);
- Public Storage (United States), which withdrew its plans to acquire the share capital of National Storage REIT, an Australia-based publicly-traded REIT, for an estimated $1.2 billion (Business Wire, 2020a);
- Asia Pacific Village Group, an entity owned by the EQT Infrastructure IV,

which terminated its Scheme Implementation Agreement with Metlifecare (New Zealand) in a $1 billion deal (Company News HQ, 2020);
- "HOT Telecommunication Systems, a subsidiary of NextAlt SARL (Luxembourg), which withdrew its tender offer for the share capital of Partner Communications (Israel) for $900 million" (UNCTAD, 2020, p. 4);
- Melco Resorts & Entertainment (Hong Kong, China), which announced that it would drop investment plans in Crown Resorts (Australia) in a transaction worth $600 million (Ggrasia, 2020);
- Alphatec Holdings (United States), which terminated its tender offer for a stake in EOS Imaging (France) for about $100 million (Business Wire, 2020b).

Figure 2: Announced greenfield projects and cross-border mergers and acquisitions deals, monthly and average number, 2019 and early 2020



Source: UNCTAD (2020). World Investment Report 2020. New York and Geneva, p. 5.

Some companies have play significant role in tackling and fighting the pandemic and limiting disruptions to economies. Many of them are leaders in their industries. For example:

- PwC, inter alia, has created a free COVID-19 Navigator, a digital assessment to help organizations understand the impact of COVID-19 on their business and assess their readiness to respond. PwC works with the government to help the corporate sector. "Along with financial donations to charities, PwC has donated medical supplies and equipment to hospitals and medical centers" (Clift & Court, 2020);
- Koç Holding, Turkey's largest investment holding company, has mobilized its capital to reduce the risk of coronavirus. Arçelik, a Koç Holding subsidiary and leading consumer durables manufacturer in Europe, is undertaking the mass production of life-saving mechanical ventilators to help the country avoid possible shortages (Clift & Court, 2020);
- two of the world's biggest vaccine makers, GlaxoSmithKline (GSK) and Sanofi, are collaborating on a COVID-19 vaccine (Clift & Court, 2020);
- PepsiCo is directing $45 million COVID-19 response initiative to communities hardest hit by the pandemic (Clift & Court, 2020);

- LEGO will donate US $50 million to ensure children, particularly those most affected by the COVID-19 crisis, continue to have access to learning through play (Clift & Court, 2020);
- H&M has offered to donate and source supplies of protective masks, gowns and gloves to countries most affected in the EU. "Luxury firm LVMH, which owns Louis Vuitton, Bulgari, TAG Heuer and many other brands, will use its perfume production infrastructure to make hand sanitize" (Clift & Court, 2020).

3. Possibilities to mitigate the effects of a pandemic

To survive and compete successfully in an increasingly demanding market, "companies must use best management practices, strategies and tools" (Janjić, Bogićević & Krstić, 2019, p. 14). In pandemic conditions all these requirements become even more complex. The business was not prepared for the pandemic conditions and COVID-19 crisis. Although, this does not mean business should not make possibilities to mitigate the effects of a pandemic and get through it, and also make a preparation for the next no matter what form would it take (pandemic, extreme weather, fires, etc.). There are several aspects standing out in this current matter regarding international business and its management.

The important question is what international business strategies should include: retreat, resilience and/or agility (ITC, 2020), that is, what kind of a strategy to adopt to deal with the pandemic.

The first one, retreat, although undermine the competitiveness of companies, implies that companies are forced to exercise caution and withdraw from circumstances that cannot change. However, retreat measures often involve doing nothing or taking emergency measures that will cause damage in the long run.

The second one, resilience, includes an adaptive approach to the business and environmental circumstances. In the current context of pandemic-related conditions, resilience may include shifting the sales mix towards online channels, sourcing from new suppliers or learning to telework (ITC, 2020).

Resilience of different business aspects is very important in current pandemic conditions, including leadership, revenue, organizational, financial and operational component of resilience (Isenberg et al., 2020) in the following way:

- *Leadership resilience* should imply strengthening the entire network of relationships, including all stakeholders, from customers and suppliers to the community. In the context of a global epidemic, this aspect additionally gained in importance;
- *Revenue resilience* should imply nurturing long-term relationships with customers. In pandemic conditions that could be, for example, by upgrading sales management through moving it towards the cloud to facilitate remote access and spread the risk of a specific location losing connectivity;
- *Organizational resilience* should imply resolving organizational issues differences, more detailed, and precise. In pandemic conditions, it should include, for example, the establishment of clear written guidelines for who

makes what decisions, the systematization of the free and fearless flow of information from employees, the creation a written plan for cost-cutting in the event of a shift, the communication of bad news clearly, concisely and with empathy, updated daily, with realism, transparency and honesty, the announcement of cutbacks or staff changes to the entire company and the creation a forum for discussion;

- *Financial resilience* should imply to have a firm grasp on how money moves through the company, especially in pandemic conditions. Furthermore, to negotiate cancellation or service suspension clauses into all future supply contracts, to negotiate credit facilities with bankers and credit lines with suppliers, to introduce new payment terms and provide discounts for early payments and to demand longer payment deadlines or discounts from suppliers without hesitation;
- *Operational resilience* means mapping the supply chain from raw materials to the end customer and identifying all vulnerabilities, especially in a pandemic. Moreover, conducting a formal audit of production and service logistics and establishing a written protocol for communication with suppliers during the crisis, implementing a data-security plan for information infrastructure and forming task forces and communications platforms in fixing issues without delay (Isenberg et al, 2020).

Renjen (2020) outlines five fundamental qualities of resilient leadership which should help executives to ensure their companies emerge stronger from the impact of coronavirus, which imply:

- "Design from the heart… and the head", what implies that resilient leaders are sincerely empathetic with their employees, customers and their stakeholders, while at the same time they must maintain rationality in order to protect the financial position of the company;
- "Put the mission first", what implies that resilient leaders are capable in triage, able to stabilize their organizations in times of crisis, while at the same time finding the least bad solutions despite visible limitations;
- "Aim for speed over elegance", what implies that resilient leaders take courageous and decisive action based on incomplete information;
- "Own the narrative", what implies that resilient leaders seize the narrative at the outset. They are transparent about a current situation, while at the same time they provide a convincing picture of the future that inspires others to persevere;
- "Embrace the long view" what implies that resilient leaders are long-run oriented anticipating the new business models and innovations that will shape the future.

It is also important to distinguish three time frames through which a typical crisis plays out. These frames are (Deloitte, 2020, p. 2):

- Respondent, in which a company deals with the present situation and manages continuity;
- Recover, during which a company learns and emerges stronger; and
- Thrive, where the company prepares for and shapes the 'next normal'.

Managers have a significant and additional responsibility to consider all three frames, to identify where their organization is, and to allocate resources accordingly.

The third one, agility, implies constructive reaction and adaptation to situation and risk, including creation of new products and services and/or business models. Agility during the pandemic conditions may include creation of new products, such as designer masks and rapid testing technologies or business models in which employees are lent to other active businesses in essential industries.

Beyond the previous, another important aspect is the digitalization of business. The pandemic represents an additional impetus for further expansion of business digitalization. New creative solutions can satisfy wide groups of users faster. Updating business models, especially adopting and updating digital business models, is now an imperative for almost every company in order to survive and compete.

Digital transformation is not a new request for business. However, the pandemic will force companies to speed up their digital transformations. Leaders in companies will face many challenges and opportunities. In these conditions, successful leaders will take the opportunity to determine a new path for digital transformation that coincides with the flexible role of business. (George & Lukhele, 2020).

The important roles in the process of business survival and recovery have business support organizations, including chambers of commerce, sector associations, trade promotion organizations, investment promotion agencies, as well as banks, insurance companies, and other supporting entities. They must continue to deliver their services, although they are facing greater concerns and risks.

Transparency and access to information are also important and critical, especially in order to obtain information about COVID-19-related assistance programs, government initiatives, and other related assistance initiatives.

In the pandemic-related conditions, full of unknowns and declining trends of almost all economic indicators, managers have a huge responsibility to consider everything previously stated and act accordingly. There are beliefs that the COVID-19 crisis may also become an opportunity for companies to create even greater value and positive social impact. (Deloitte Insights, 2020).

Conclusion

The economic disruptions triggered by the pandemic are huge and overall. There are numerous risks which the companies are dealing with and which affect the reaction of companies. At the beginning of the pandemic, companies responded in similar ways. However, beyond this common reaction, there were differences between companies in response.

The pandemic conditions have had immediate effects on international business operations. Companies have reduced their international business operations all over the world across all groups of countries, and all industries. A significant number of announced greenfield projects and cross-border mergers and acquisitions deals has been cancelled. On the other side, some companies, leaders in their industries, have played a significant role in tackling and fighting the pandemic, and limiting disruptions to economies.

The far-reaching impact of COVID-19 has unquestionably put the new focus on how companies respond, and how they should respond to this kind of crisis. The pandemic crisis will certainly start new forms of business and with the change of business behavior on a global level.

In this kind of crisis, pandemic-related, full of unknowns and declining trends of almost all economic indicators, managers have a significant and additional responsibility to consider all relevant aspects and act accordingly making possibilities to mitigate the effects of a pandemic and to get through it. The current situation may be seen as a form of test of the ability of all kinds of businesses and managers to cope with this type of crisis. The pandemic conditions will shed light on which strategies will allow businesses and economies to survive and recover.

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THE CONCEPT AND OBJECTIVES OF ENVIRONMENTAL MANAGEMENT

Abstract

Environment protection has become a very common subject of discussion all over the world due to the destructive influence of man's economic activities on the environment in the name of sustainable global economy. The purpose of this paper is to address the issue of environmental management as a part of the overall management system. The aim of the paper is to emphasize the significance of environmental management and its concern with the management for environment encompassing a business. Sound environmental management can only be equated with good management and should have sufficient measures for minimizing the environmental damage.

Key words: *environmental management, standards, management systems, environmental management instruments*

JEL classification: *R11*

КОНЦЕПТ И ЦИЉЕВИ УПРАВЉАЊА ЗАШТИТОМ ЖИВОТНЕ СРЕДИНЕ

Апстракт

Заштита животне средине је постала веома уобичајена тема дискусије у целом свету због деструктивног утицаја човекових економских активности на животну средину у циљу одрживе глобалне економије. Сврха овог рада јесу проблеми управљања животном средином као дела укупног система менаџмента. Циљ рада је нагласити значај управљања животном средином и његовим интересом за управљањем животном средином које обухвата пословне активности. Разумно управљање животном средином може се изједначити са добрим менаџментом и требало би садржати адекватне мере за минимизирање штете по животну средину.

Кључне речи: *управљање заштитом животне средине, стандарди, системи управљања, инструменти за управљање животном средином*

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Introduction

The concept of environmental management is not easy to define. Environmental management is a young scientific discipline created in the field of ecology at the end of the last century with the task of reducing, to the minimum dimensions, the impact of technical and technological development on the biosphere and the survival of living beings (Živković, 2016).

It may be related to goals or visions, attempts to direct a process, the application of a series of tools, philosophical practices that aims to establish new perspectives on the environment and human society, and so on. The managers of environmental protection can be counted among different groups of people, which include scientists, policy makers, NGO workers, employees in companies, public officials and a wide range of people or groups of people who make decisions that affect the way we use natural resources (E.g. fishermen, farmers and herders). Environmental management extends to all human beings to some extent, since ultimately all human activities have some environmental impact. However, some people are more directly involved in the use of resources, while certain interest groups are particularly concerned about resource development and pollution. Therefore, environmental management requires a multidisciplinary perspective.

A team of HR professionals dealing with sustainability issues represents employees as an interest group that plays a key role in forming 'green teams' and encouraging employee engagement in environmental and other issues. The HR team also accomplishes goals that are their responsibility, such as employee fluctuations, safety at work, and employee satisfaction. Green Human Resources utilizes the employee's ability to respond to environmental sustainability promotion requirements through the results of their work and improve employee awareness and commitment to sustainability issues (Elesawi, 2018).

In order to enable a shift towards the desired environmental situation in the future, planning methods and models must be used to help accurately guide sustainable development policy. Therefore, it is necessary to develop methods of environmental management at the level of theory, as well as at the level of regulations, standards and guidelines. A precondition for any effective environmental management is a firm control over the execution policy in order to achieve effective democratic governance. This requires responsible elected representatives at all levels, and at the central level, effective committees that can assist in the adoption of sustainable environmental policy, review proposed laws and regulations, monitor the effectiveness of the implementation of adopted laws, conduct investigative hearings and play a key role in regional networks (Entesar, 2018).

It includes a number of scales, from local to global. It also covers a wide variety of goals, including the will to control the direction and pace of development, optimize resource use, minimize environmental degradation, and avoid environmental disaster. Individuals and groups that have opinions and even directly opposing views can carry out environmental management. For example, when environmental managers employed by large multinational companies conflict with environmental managers representing voluntary organizations.

However, in general, environmental management is concerned with understanding the structure and function of the terrestrial system, as well as how humans relate to their environment. Consequently, environmental management is concerned with identifying, observing and tracking environmental change, predicting potential changes and making

an attempt to optimize human benefits and diminish environmental destruction which are caused by the behavior and activities of men. However, it is characteristic that environmental management is about decision-making - and it is especially concerned with the decision-making process regarding the use of natural resources, pollution of habitats and ecosystem modification (Martín &de Castro, Amores & Salvadó & Navas & López, 2016).

Eco-management involves planning, organizing, personnel policy, leadership and process control. Capability development in environmental management is conditioned by education and training.

1. Environmental management - good business practice

Environmental management is part of good business practices in all organizations that have a clear strategy and target based on constant improvement of its processes. For organizations involved in sustainable urban development planning, it is a challenge and a way to prove and commit to new approaches, new philosophies, a new way of thinking, a critical and scientific approach, a willingness and capacity to change, to abandon half-lives and undertake business and other ventures with better efficiency and with a general affirmation of effective practice (Grujić & Živanović, 2012).

The principles and elements of environmental management strategies include the following:

- Environmental policy;
- Planning;
- Implementation and implementation verification and corrective action;
- Review and improvement;
- Continuous improvement (Đukanović, 1996).

Essentially, environmental management is a political issue because decisions regarding resources, pollution and the environment are not made according to ecological goals but according to the possibilities dictated by the authorities and interest groups. Moreover, in the sense that humans manipulate and control the components and processes of terrestrial systems, it is usually naive to regard environmental management as simple "environmental management". Instead, the more accurate is to suggest that people may be able to advance in the management of human influence on a particular system. Finally, environmental management pays more attention and it more conceted to the management of human activities and their impacts, rather than natural impacts.

Nevertheless, some types of activities are common to environmental managers. Environmental managers try to deliberately manage the development process to take advantage of opportunities; they seek to ensure that critical environmental boundaries are not exceeded; work to reduce and mitigate environmental problems; and they are concerned about increasing the adaptability and resilience of human societies in the context of environmental change, changeability, unpredictability and danger (Batle, Orfila-Sintes & Moon, 2018).

From this point of view, environmental management can be defined as a system that anticipates and avoids or solves environmental and resource problems. On the other point of view, environmental management can be defined as a process that refers to the interaction between man and the environment that aims to identify:

- What are the environmentally desirable outcomes?
- What are the physical, economic, social, cultural, political and technological constraints to achieving these results?
- What are the best options for achieving these results?

Indeed, in many parts of the world (and perhaps around the world) environmental management is closely linked to issues of justice and even survival. Further definition may suggest that environmental management is concerned with meeting and improving human security and requirements in a sustainable manner with minimal damage to natural habitats and ecosystems. Therefore, the concept of sustainable development, as one of the problematic and very important concepts, is closely related to the concept of environmental management.

The implementation of eco-management in ecology and sustainable development imposes certain changes in thinking and business. Environmental management is about environmental planning and its focus is on implementation, monitoring, control as well as practical issues that need to be addressed in terms of environmental conservation, for example, modifying habits that are detrimental to human nature, and is much more than theoretical planning (Milutinović, 2012).

The objectives of environmental management include:

- Prevention and resolution of environmental problems;
- Establishing borders;
- Establishment and maintenance of institutions that effectively support environmental research, monitoring and management;
- Hazard warning and identification of ways to overcome them;
- Maintain and if possible improve existing resources;
- Where improvement in "quality of life" is possible;
- Identifying useful new technologies or policies (Živković, 2016).

Too much environmental awareness and quality of life have developed over the last three decades. The vocabulary of the environment is regularly updated with new terminologies such as clean technology, environmental auditing, environmental products, environmental impact assessment, conservation of life resources, etc.

Now the time has come when our policy makers and society should aim to protect, preserve and regulate development in a manner that will not create harmful effects on ecosystems and human needs can also be met. All over the world, especially in developing countries, these are the urgent need to manage the entire environment. In the first place, environmental management has three things to do:

- Identify goals;
- Determine if they can be fulfilled;
- Develop and implement the tools that can be done.

Environmental management is therefore an approach that integrates ecology, policy making, planning and social development (Famiyeh et al., 2018).

Some of the goals have been formally set. Thus, for example, the first principle of the Rio Declaration on Environment and Development explicitly formulates that human beings have a central place in the concern for sustainable development. They have the right to a healthy and productive life in harmony with nature. Agenda 21, as the broadest global document adopted at the World Summit on the Environment and Sustainable Development in

Rio in 1992 in Chapter 30, which focuses on strengthening the role of business and industry, contains two separate programs:

- Improving cleaner production;
- Improving the responsibility of entrepreneurship.

The objectives of environmental management can also be viewed through the objectives of the environmental management system. The objectives of eco-management (according to the EMAS Rule 2001) can also be viewed as general. The overall objective is to evaluate and improve the environmental performance of an organization and to provide relevant information to the public and other interested parties (Živković, 2016).

2. Environmental management systems

The system can be interpreted as a number of interconnected elements that work together to achieve a clearly defined objective. Therefore, it can be said that the system of environmental management consists of a set of interconnected elements that work together to achieve the goal of an efficient environmental management. So what are the elements that make up an environmental management system? Many larger companies have had environmental management systems in place for many years. As each company has designed its system to meet its specific needs, these systems vary greatly, i.e. they contain a different combination of elements. However, recently the International Organization for Standardization (ISO) formulated a common model of an environmental management system with the elements that an environmental management system should contain. The model is designed to be applicable to organizations of all types and sizes worldwide and is considered an established standard.

The international standard ISO 14001 is a standard for management that aims to support a comprehensive environmental protection. The standard is written in a manner that is applicable to all types and sizes of organizations, and can be adapted to different geographical, cultural and social conditions.

This International Standard specifies the requirements relating to the system of environmental management, to enable it to develop and implement a policy and objectives of environmental protection taking into account all legal and other regulations with which organizations agreed on, as well as information on significant impacts to the environment (Heras & Saizarbitoria, Arana & Boiral, 2016).

Environmental Management Systems ISO 14001:2004 is a management tool that enables an organization of any size to:

- identify and control the environmental impact of its activities, products and services;
- improves the attitude towards the environment;
- implement a systematic approach that will achieve environmental goals and provide evidence that it has achieved its objectives.

The ISO 14001 elements are organized around 5 steps:

Step 1 - Environmental Policy

The company makes a policy that outlines its intentions with respect to the environment.

The policy must include obligations to:

- Continues to make progress;
- Prevents pollution;
- Complies with relevant environmental legislation and other legal requirements.

ISO 14001 defines the "continuous improvement" as the process of improving the system of environmental management in order to achieve performance improvement in the environment in accordance with the environmental policy of the organization. The environmental policies of companies shall include the obligation on continuous improvement, prevention of pollution and in accordance with the relevant legislation in the field of environment. In addition, the policy must provide a framework for setting goals that must be communicated to all employees and must be publicly available.

Step 2 - Planning

The company then must themselves set targets relating to their political commitment and devise a plan to meet these goals. The first thing he has to do is identify what the standard calls "environmental aspects". They are defined as "elements of activities, products or services of the organization that can interact with the environment." Once you determine its aspects of environmental protection, the company must establish which of them were "significant", ie. which of them have a significant environmental impact. In order to identify its significant environmental aspects, a company must carry out an "environmental review". It should be emphasized that environmental audit is the foundation upon which the rest of the management system is built and should be carried out as thoroughly as possible.

Step 3 - Implementation and operation

After reviewing its plan, the company must then establish the various elements necessary for its successful implementation and operation. The following elements necessary for the successful implementation and functioning of an environmental management program are:

- Structure and responsibility;
- Training, awareness and competence;
- Communication;
- Documentation of the environmental protection system;
- Document control;
- Operational control;
- Emergency preparedness and response.

Step 4 - Check and corrective action

After application of the plan, the company must check whether it was successful in meeting its objectives. If not met, they must take corrective measures. The entire management system must be periodically inspected to see if it meets the requirements of the standard. The company must establish and maintain documented procedures for regular monitoring and measurement, those areas covered by the objectives to see if they met. The company must also establish and maintain a documented procedure for periodically assessing compliance with relevant environmental legislation and regulations.

Step 5 - Management Report

Management must periodically review the system to ensure its continued efficiency and convenience. Changes are made to the system as needed. The review must address the

possible need for changes to the policy, objectives and other elements of the environmental management system due to the following items:

- Audit results;
- Changes in circumstances and
- The company's commitment to continuous improvement.

The main reasons that lead to the expressed need for the introduction of an environmental protection system ISO 14001: 2004 are:

- Continuous pollution;
- Fear of complete depletion of natural resources;
- Lack of organized and systematic monitoring of pollution consequences;
- Increased public interest in environmental protection;
- Legal solutions;
- Special working conditions in vulnerable areas.

The advantages of implementing ISO 14001 environmental protection system:

- Reduction of negative effects on the environment;
- Reducing the risk of environmental disasters;
- Increasing the ability to respond quickly and effectively;
- Improved reputation and trust in the community;
- Competitive advantage;
- Legal certainty for compliance with environmental laws;
- Easier obtaining of authority and permits from local and state authorities;
- Improving your reputation and that of your client;
- Better use of energy and protection of water, careful selection of raw materials and controlled waste recycling, contributes to lower costs and increases your competitiveness;
- Reduces your financial burden due to reactive management strategies such as repairs, cleanups, violation of laws;
- Improving the quality of jobs and employee morale;
- New employment opportunities are opening up in markets where organic production is important;
- Environmentally conscious customers will deal with companies like yours as it emphasizes its commitment to the environment (ISO, 1996).

3. Environmental standards - ISO 14000

The areas in which the ISO 14000 series are classified include 34 standards for systems, processes and products.

1. An environmental management system where ISO 14001: 2015 applies;
2. Environmental Research and Verification (ISO 14020) - includes site evaluation, verification guide;
3. Environmental labeling - consists of environmental-related type I, II and III declarations and labels (ISO 14020 series);
4. Environmental performance evaluation - evaluation of technologies, communications and qualitative information (ISO 14030 series);

5. Life cycle assessment - guidelines and requirements, principles and framework, eco-efficiency assessment of product systems (ISO 14040 series);
6. Greenhouse gas management (GHG) - requirements for verification bodies, team competence requirements, GHG reporting (ISO 14060 series);
7. General locations, which include definitions, terms, and cost accounting for material flows (ISO 14050) (Radovanović, 2018).

4. EMAS (Eco Management and Audit Scheme)

European Commission developed EMAS (management tool) for companies and organizations to evaluate, report and improve environmental performance. EMAS is open to any type of organization that wants to improve its environmental performance. It covers all sectors of the economy and services and is applicable worldwide.

The EMAS system has the principle of voluntariness and accessibility to all economic sectors. The key features of EMAS are transparency, accuracy and efficiency. EMAS is a system harmonized at EU level (European Commission, 2017).

The EMAS system provides:

1. Greater credibility, transparency and reputation;
2. Enhanced management of environmental risks and opportunities;
3. Better environmental and financial results;
4. Greater employee motivation.

5. Environmental management instruments

Environmental management methods and instruments are systematic means of obtaining environmental information and helping to make decisions about the environmental impact of ongoing or planned activities to protect and improve the environment, or to achieve the goals of sustainable development. These funds can be used by all social actors (whether from the private or public sector), in sims and at all levels, from local, through regional, national to international (Entesar, 2018).

There are a number of management tools (mechanisms, resources, methodologies) that are currently in use or can be used to achieve specific environmental goals. The most interesting classification of environmental management instruments is according to the criteria of the entities applying them, and it is possible to distinguish: instruments in the creation, implementation or implementation of which international organizations have a leading role; instruments for the implementation of which are the responsibility of the States; instruments pertaining to business organizations and instruments created for the most part to enable public participation in decision-making processes. The complexity of individual management instruments should be taken into account.

Environmental management instruments are:

- Planning instruments;
- Economic instruments;
- Legal instruments;
- Environmental Impact Assessment;

- Monitoring and evaluation instruments and management instruments that are largely inherent in business organizations: the concept of clean production; integrated production policy;
- Life cycle assessment;
- Risk assessment and risk management;
- Environmental verification;
- Eco-labeling;
- Environmental performance evaluation;
- Environmental accounting;
- Green Procurement;
- Voluntary agreements;
- Environmental management systems;
- Instruments derived from the concept of integrated pollution prevention and prevention;
- Procedures related to public participation and the concept of sustainable production.

In practice, a greater number of eco-management and / or environmental management tools are being implemented. Some of the instruments are used as a legal obligation, some are standardized according to national or international standards and their implementation is voluntary, while others are in the development and refinement phase.

According to the OECD, the following economic instruments exist:

1. Fees and taxes on pollution emissions;
2. User fees and taxes;
3. Penalties;
4. Product fees;
5. Performance guarantees and,
6. Damages (Popov, 2011).

Strategic environmental assessment can take many forms:

1. Sectoral (transport, energy, water management development strategies);
2. Spatial (assessment of spatial plans at national, regional and local level);
3. Indirect (environmental assessment of scientific programs, plans for privatization of public companies, etc.).

The scope of strategic environmental assessment involves testing the quality of: air, water, land, biodiversity, as well as waste recycling. In addition, it may include multi-source impact assessment (cumulative impact assessment) and social impact assessment (Mihajlović, Stojanović & Ilić, 2011).

Conclusion

The goal of environmental management is improved quality of human life. The main concern of the environmental management is to meet and improve human needs and demands provision on a sustainable basis while having a minimal damage to natural habitats and ecosystems.

An environmental management system refers to the management of an organization's environmental programs in a planned, comprehensive, systematic and documented manner. It includes the organizational structure, and the planning and resources for developing, implementing and maintaining policy for environmental protection. Also, it serves as a tool for environmental performance improvement and provides a systematic way to manage the affairs of the particular business entity environmental affairs. The environmental management standard seeks to reduce the impact on the environment as measured by some objective criterion. The most widely used standard for environmental risk management is ISO 14001 standard.

Greater political and social demands on companies to mitigate their environmental impact were driven by increasing awareness of environmental problems caused by economic activity. This led to emergence of an organization's ability to manage corporate environmental performance as a strategic issue for companies. By proper implementation of environmental management techniques and tools, the company can manage its impact on the environment - reduce energy consumption and emissions, increase water usage efficiency and achieve better management of waste. The advantages of using an environmental management system include ensuring a holistic approach to environmental impacts while gaining economic benefits such as lower environmentally related costs and fees and direct savings through environmental source reduction.

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FUNCTIONAL LINKS BETWEEN RURAL AND URBAN AREAS IN THE TERRITORY OF THE CITY OF BANJA LUKA AND THE PERSPECTIVE OF THEIR DEVELOPMENT

Abstract

Different types of interactions between rural and urban areas have the effect of improving economic, social, cultural and political dimensions in both areas, separating these two areas by their type of activity. Rural and urban types of regions have different resources and means that can be used in a complementary way. In rural-urban interaction there is a possibility of occurrence of conflict of interest of these two areas. This kind of conflict should be overcome when applying the partnership approach between rural and urban areas. The types of rural areas, depending on the proximity of the urban center and the functions of these areas, are divided into suburban, agricultural and remote type areas. By determining the functions of each type of area, the type and intensity of the interactions of rural areas with the urban center are presented. Rural entrepreneurs are able to bridge rural-urban differences, possessing certain market knowledge and descriptions of the characteristics of urban environments, while benefiting from their position. Rural entrepreneurs' interaction with the urban environment can contribute to sustainable economic relations between citizens in urban and rural areas. This paper presents the results of research related to determining the functions of certain areas, their strengths, unused and utilized resources, the frequency of interaction with the urban environment and the perspectives of suburban, agricultural and remote type areas in the context of interaction with the urban environment.

Key words: *economics of development, functional relations, trade: general, urban, rural and regional economy.*

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ФУНКЦИОНАЛНЕ ВЕЗЕ ИЗМЕЂУ РУРАЛНИХ И УРБАНИХ ПОДРУЧЈА НА ТЕРИТОРИЈИ ГРАДА БАЊА ЛУКЕ И ПЕРСПЕКТИВА ЊИХОВОГ РАЗВОЈА

Апстракт

Различитим врстама интеракције између руралних и урбаних подручја долази до побољшања економских, друштвених, културних и политичких димензија у оба подручја, раздвајајући ова два подручја по врсти њихових активности. Рурални и урбани типови региона имају другачија средства и ресурсе који се могу користити на комплементаран начин. Приликом рурално-урбане интеракције постоји могућност појављивања сукоба интереса ова два подручја. Овакав вид сукоба би требао да се превазиђе применом приступа партнерства између руралних и урбаних подручја. Врсте руралних подручја зависно од близине урбаног центра и функција тих подручја, деле се на приградски, пољопривредни и забачени тип подручја. Одређивањем функција сваког типа подручја, долази се до приказивања врсте и интезитета интеркација руралних подручја са урбаним центром. Рурални предузетници су у стању да премосте рурално-урбане разлике, поседујући одређена знања о тржишту и описе карактеристика урбаних средина, истовремено профитирајући од свога положаја. Рурални предузетници интеракцион са урбаном средином могу допринети одрживим економским односима између грађана у урбаним и руралним срединама. Овај рад приказује резултате истраживања везане за одређивање функција одређених подручја, њихових снага, неискоришћених и искоришћених ресурса, учесталости интеракције са урбаном средином и перспективи приградског, пољопривредног и забаченог типа подручја у контексту интеракције са урбаном средином.

Кључне речи: *економија развоја, функционални односи, трговина: општа, урбана, рурална и регионална економија.*

Introduction

Rural–urban linkages play a crucial role in the generation of income, employment and wealth. Yet, for various reasons the importance of such linkages is not recognized and thus ignored in national economic and trade policies (Sule Akkoyunlu, 2015). By analyzing the rural areas in the territory of Banja Luka, we get an overall picture of the interaction of rural and urban space. When defining the economic, social, cultural and political aspects of rural areas that are changing in relation to the types of areas, a picture of spatial and sectoral flows that take place between rural and urban areas is presented. The rural-urban linkages may be defined as the two way movement of people, goods, capital, technologies and social transaction which is functional and structural. Rural-urban linkages are both a cause and a consequence of socioeconomic and cultural development (Raisul Bari, 2014). According to Ruddle (1979), a balanced spatial system can be achieved in most developing countries by stimulating increased production, employment and demand in rural areas and by extending to smaller settlements the

services and facilities that will encourage increased productivity and the consolidation of rural population into larger economic centers.

Functional links between rural and urban areas can be defined as economic, social, cultural and political relations between the urban environment (center) with all its economic, social, cultural and political aspects and with all the aspects that are in rural areas. Rural-urban links can also be defined as spatial and sectoral flows that take place between rural-urban areas. Spatial flows include flows of people, goods, money, technology, information, knowledge and even waste. On the other hand, sectoral flows are flows of agrarian products that come from rural to urban areas, diversely goods produced in urban centers circulate to rural areas. The articulation of rural-urban relations is expressed in all forms of population migration, daily, weekly, monthly as well as in the production of goods, consumption, financial and investment ties, exchange of money, goods, social relations between relatives and friends in rural and functional environments. According to Evans (1990), rural-urban linkages may be thought of as trade, exchange, and the flow of the ressources between one spatial component of the national economic system and another, where these resources include goods, services, money, remittances, savings, investments, public revenues and expenditures, labor, migrants and information.

The main household income from rural areas, depending on the type of area, is based on work in agriculture on own holdings, work in non-agricultural activities on own holding / household, work with employers in non-agricultural holdings, work in agriculture at other farm / company, work in own company in non-agricultural sector and income from non-profitable income (rent, dividend, donation).

When proving and analyzing the key functions of rural areas, depending on the type of area (suburban, agricultural and remote) and their economic, social, cultural and political aspects, their interaction with the urban center is shown. For the suburban (industrial) type of area, the populated place of Ramici was analyzed. The local community of Motike and the local community Ljubacevo were analyzed for agricultural and remote type of area.

1. Literature review and theoretical framework

Arguments associating rural-urban linkages have continuously received attention in development policy as an important process in both socio-ecological and economic sustainability process both in rural and urban areas (Farai Kapfudzaruwa and associates, 2018; Tacoli and Satterthwaite, 2015; Lazaro and associates, 2017).

Rural-urban linkages can be defined as the structural social, economic, cultural, and political relationships maintained between individuals and groups in the urban environment and those in rural areas (Lesetedi, 2003; Lindile L. Ndabeni, 2016). Rural-urban linkages can also be interdependence as spatial and sectoral flows that occur between rural and urban areas (Tacoli, 1998; Bah et al., 2003; Von Braun, 2007).

Traditionally, the economic and territorial development of rural and urban areas have been considered separate topics in both research and policy, where this statement has been reinforced by the sense that differences in economic, cultural and spatial circumstances lead to differences in economic, cultural and social interests. However, urban and rural areas are increasingly integrated both physically and functionally, and

because of their distinct and complementary endowments, closer integration can bring benefits to both (OECD Rural Policy Reviews, 2013).

Driven by technological progress, improvements in infrastructure, and liberalization and the creation of markets, globalization has meant rapid rural transformation across the developing world (Joachim von Braun, 2007). Perspective on rural–urban linkages is particularly important in the context of sustainable economic development. There is increasing evidence that with the growing integration of the global economy, trade liberalization, increasing importance of a knowledge based economy, etc. large urban agglomerations are disproportionately benefitting from these developments (Akgün A. A, 2008; Mayer and associates, 2016). According to Czischke (2015), for sustainable urban development there are 3 important "topics", which one of them is rural-urban linkage. Together, these "topics", aim to contribute to the overarching goals of more sustainable development, where rural-urban linkage need to be strengthened in the future.

Economically, there is a large division between cities and the rest of BiH, with official statistics showing that Sarajevo, Banja Luka, and the other four big cities have almost 40 percent lower unemployment, 25 percent higher salaries and more than twice the GDP per capita in relation to the rest of the earth, which all cause significant migration of people from rural areas to cities (Goran Živkov, 2013).

The Urban-rural typology classifies the NUTS-3 (Nomenclature of Territorial Units for Statistics) regions of the European Union (EU) into three different categories: predominantly urban, intermediate and predominantly rural. Predominantly urban regions have less than 20 % rural population, intermediate regions between 20 % and 50 % and predominantly rural regions more than 50 % (Updated urban-rural typology, 2013).

Cities are seen as motors of smart, sustainable and inclusive development and attractive places to live, work, visit and invest in. Urban-rural interdependence should be recognized through integrated governance and planning based on partnership (Mendez, 2011, Andrew Copus 2015).

Rural incomes are decreasingly based only on agriculture. This is positive in that it allows smallholder families to invest in agricultural production, and be less dependent on the insecurity inherent in farming. In many cases income diversification involves migration to urban centres; but in the most positive cases, income diversification goes hand in hand with the diversification of the local economic base, where processing of agricultural retains added value and provides non-farm jobs (Cecilia Tacoli, 2013).

2. Objective and methods of work

The aim of this research is to present functional links between rural and urban areas, which include sectoral and spatial flows between rural and urban areas in the territory of the city of Banja Luka and the perspective of their development. In order to analyze the current state as the starting point in each research, the different functions of rural areas will be presented depending on the type of area and their changes, starting from suburban areas dominated by the secondary and tertiary sector, agricultural areas where the primary sector is most concentrated to the remote areas. By showing the perspective of improving rural-urban connections, it would be reflected in urban-rural partnerships based on the

potential of these areas. Urban and rural areas have different descriptions of functions that can complement one another and create a better socioeconomic performance.

Starting with the object and purpose of the research, standard statistical methods that are common to this type of research are used. The research used a statistical method where the results are presented by graphical analysis, the descriptive method, based on which the existing available resources and the way of their use are described, the method of proofing, the method of analysis and synthesis, the comparative method, induction, deduction and survey. During the survey, the survey method used was realized using a structured questionnaire and included questions about demographic data on the household, sources of income of the household, types of connections with the urban area and rural development. The survey included 45 households in the rural areas of Banja Luka. For the purposes of this paper, data from the Statistical Office of the Republic of Srpska were used, data from municipal authorities and ministries, chamber system, business entities, etc. The used literature and data sources are statistical anniversaries, strategies, results of scientific papers and other available domestic and foreign literary sources.

3. Functional links between rural and urban areas in Europe

In all EU Member States, local and regional authorities have built rural-city partnerships to better exploit the potential of such regions. The European Union's emphasis on defining rural and urban areas is placed in areas where it is more difficult to define the distinction between rural and urban areas.

Eurostat has established an urban-rural typology, the Nomenclature of the Territorial Units for Statistics (NUTS1, NUTS2 and NUTS3). 51.3% of the EU's land area is predominantly rural and inhabited with 22.3% of the total EU population 502 million). Estonia, Ireland, Greece, Portugal and Finland are predominantly rural areas (80% of the territory).

Promoting partnerships can be seen in Italy, where the metropolitan area of Milan has partnership relations with the Alpine areas. The best example of partnerships between urban and rural areas can be seen in Amsterdam.

The project for the development of functional connections in Amsterdam started in 2006 and is managed by the Municipality of Amsterdam. The objectives of this project were to support the production of healthy food and nutrition, sustainable local food chains that interacted with rural areas. The strategy of this project was based on the combination, linking and increasing of the current initiative in the field of sustainable agriculture and healthy food. In Amsterdam in 2010, new calls for interested parties in the food chain were created and involved in the development of functional links between rural and urban areas. The increase in the sales of products produced in rural areas from 3.4% in the beginning, 2007 to 7% by the end of 2007 was achieved on the entire territory of the city of Amsterdam. In 2010, there was an increase in sales of food produced in rural areas in the City of Amsterdam in canteens by 60%.

4. Results of Research

According to the NUTS nomenclature, Banja Luka belongs to NUTS 3 in the Intermediate regions, where the percentage of rural population in relation to the total population is 25%. The total area of rural areas is 1055.68 km2, which is 85.18% of the territory of the city of Banja Luka. According to the Statistics Institute, the percentage share of the number of inhabitants of the rural area in the number of inhabitants of Banja Luka in 2013 amounted to 24.9%. The coverage of the rural area of Banja Luka consists of 40 complete settlements and two parts of the settlement. The number of registered persons (households) engaged in agriculture in rural areas of Banja Luka in 2015 amounted to 8,018. The share of households engaged in agricultural activity and selling products on the market is 6, 70%.

According to the OECD methodology, three types of rural areas, suburban type, agricultural type and remote type are identified. The suburban type of the area is dominated by the secondary and tertiary sector, while the income from agriculture is very significant. In the agricultural type, income is mostly based on the primary sector, while there is a significant increase in nonagricultural activities such as tourism. Remote type of area is characterized by low income in agriculture with certain service activities is predominantly represented.

Ramici is a populated place on the territory of the town of Banja Luka, which is a part of to the local community of Dragocaj. Thanks to its close proximity to the city and good infrastructure connections (the main road M4 and the railway that connects the cities of Banja Luka and Prijedor), a part of the inhabited village of Ramici has been turned into the business zone "Ramići-Banja Luka". According to the 2013 population census, the village of Ramici has 1,757 inhabitants. A large number of business entities and proximity to the city tell us that Ramici is a suburban settlement or an industrial type of settlement. Although a part of Ramici has been turned into an industrial, business zone of Ramici, despite a large number of business entities, agriculture in this settlement is not negligible. In addition to income from the tertiary and secondary sectors, most of the population is engaged in agriculture, which improves the income of their household. There are 15 companies in the business zone of Ramici: "Tri best", "Sim Impeh", "Sepl", "Messer BH gas", "Modul", "Noraplast", "Tehnomerkur" , "Elas Metalekspert", "Tenzo", "Madaco", "21 May", "ET Mah", "Jaćimovic", "MK Majkić" and "Rolofeks". Most businesses in Ramici fall into the secondary or tertiary sector. The total number of business entities in Ramici is 40. The number of business entities by activity is mostly from trade with 12 entities, industry and household activities with 7 and accommodation activities with 5 entities. Household income according to the research in the inhabited village of Ramici is based on the highest work with the employer in the non-agricultural sector outside the populated village of Ramici with 40%, while the second is the most represented group in agriculture in their own households of 27%. The most common types of agricultural activities in the household in 2018 are the production and processing of agricultural products, and the participation of organic food production is high. According to the survey, the majority of 80% of inhabitants daily visit the city of Banja Luka.

The Motike community is located north-west of the city center. According to Motiki typology, they represent the agricultural type of area, where most households are engaged in agricultural production. According to the 2013 population census, the

local community of Motike has a population of 2,515 inhabitants. The total number of registered economic entities is 24, where the largest number of companies are from the sphere of professional and technical activities. The survey shows that the main source of income for households is based on work with the employer in the non-agricultural sector, with 37%, where most of the population works in the urban part of Banja Luka. Most of the respondents, apart from work in the non-agricultural sector, also receive income from agricultural production, which represents secondary income of these households and is represented by 32%, where most of the respondents are engaged in the cultivation of fruits, vegetables and stock farming. During the survey the respondents stated that they have daily visit to the city of Banja Luka with 67%. Residents traveling daily for the city of Banja Luka have permanent employment in the urban part of the city or attending secondary schools and colleges.

The local community Ljubacevo is located south-east of the city center of Banja Luka. According to typology Ljubacevo represents a remote type of settlement. According to the 2013 population census, the local community Ljubacevo has a population of 463 inhabitants. On the territory of the local community Ljubacevo there is the ethno village "Ljubačke doline" which provide rural tourism services. The number of registered business entities in the territory of Ljubacevo is 6, and these are 2 economic entities from the sphere of secondary industry (wood processing, stone processing / quarrying). According to the survey, the main sources of income for households by 2018 are agricultural work on the holding 27% and work with the employer in the nonagricultural sector with 39%. According to the research, most respondents daily visit the city of Banja Luka with the rate of 60%, while the smallest percentage of respondents visit the urban part of the city on a monthly basis with the rate of 13%.

5. Discussion of research results

The main sources of income for households in all three areas are income from work with the employer in the non-agricultural sector. The agricultural area has the largest share of income from agricultural work on own holdings from all surveyed areas with 32%. According to the types of activity on the holding, from which revenues are realized in all three areas, they have a dominant role in the production of agricultural products, organic food production and the production of processed products. In addition to the mentioned activities on the holding, the remote area in relation to the other two areas also has activities from the sphere of traditional crafts and activities of providing rural tourism services. The remote area is the only area of study that has preserved the majority of traditional crafts, such as embroidery, blacksmithing and others.

Unused resources in the suburban area are agricultural land, facilities and manpower, also represent unused resources in households. The agricultural area in relation to the suburban area along the agricultural land, from unused resources has water and a smaller share of forests. The main unused resources in households in the agricultural area are agricultural land and labor. Unlike the other two areas, the remote area has the largest percentage of unused forest resources, stone and a smaller percentage of agricultural land. The unused factors or the reasons for the higher degree of utilization of resource resources in the farm in all three examined areas are primarily the lack of

finances, the possibility of placing goods and the quality of the land when dealing with agricultural production.

Visits of respondents to the urban part of Banja Luka from all three settlements were frequent, and are mostly based on daily visits. Starting from the suburban area whose daily visits are the most frequent (80% of respondents), the agricultural area (67%) to the remote area whose daily visits are the least (60%) and monthly visits the most. The frequency of the visit of the respondents is mainly reflected in employment in the urban part of the city, and in the vicinity of the city, so that the largest percentage of respondents from the suburban area work in the urban part of the city. From these movements, we can notice that the spatial flows of people from the suburban area are the most common of all three settlements. Private cars are the main means of transport in all three settlements. The main reasons for visiting the city of respondents from the suburban area, the agricultural area and the remote area are reflected in a job in the city, the purchase of personal consumption goods and visits to relatives and friends. Visits of respondents from the suburban area to the urban part of the city are dependent by visiting payment institutions, while respondents from the agricultural area visit the urban part due to the sale of agricultural products. The frequency of visits of relatives and friends from Banja Luka to households is most noticeable in the suburbs and the agricultural area, and are based mostly on the weekly level, while the visits of relatives and friends of the remote area are somewhat less common and are based on the monthly level. Procurement of goods, consumption and use of services and information are the main reasons for the visits of tourists and customers to households and examined areas.

The advantages of living in the suburban area, the agricultural area and the outlying area are as follows:

- In lower life costs,
- The ability to deal with agricultural production and a cleaner environment,
- Proximitythese of this areas with the urban part of the city,
- Good infrastructure connectivity.

Factors that attract respondents from the suburban, agricultural and remote areas to move to the urban part of the city are the dominant opportunities for better employment and in a smaller proportion for better access to infrastructure content and better education. The suburban area holds the largest number of public services, where the remote area has the smallest number of services.

- The development perspective of the suburban area is reflected in a good position (near the city), a very good entrepreneurial environment and human resources.
- The perspective of development of the agricultural area is somewhat different from the suburban area and it is reflected in the possibilities of dealing with agricultural production, possibilities of exploitation of groundwater in terms of improving agricultural production in irrigation and labor.
- The remote area has the largest number of natural resources such as stone and forest, and their perspective is based on the secondary industry (stone and wood processing). In addition to the secondary industry, the remote area has a good perspective for the development of rural tourism, where this local community has the only ethnic village in the entire region.

The suburban area has the best entrepreneurial environment and the most business subjects from the research areas. Suburban area, with business zone, owns 40 registered business entities, which is far greater than the agricultural area and the remote area (Table 1).

Table 1. SWOT (strengths, weaknesses, opportunities, and threats) analysis of suburban areas

Strengths	**Weaknesses**
- Proximity to urban market -Good demographic and educational structure -Access to the main road M4 -Access to the railroad -Well developed infrastructure -Education for entrepreneurship -Good entrepreneurial environment -Strong spatial flows	-The lack of public services (payment institutions, sports hall) -Notness of manifestations -Problem of unemployment -Unused resources -Demographic aging -The number of household members
Opportunities	**Threats**
-The ability of startups for young people to start their own business -The possibility of better utilization of the land for agricultural purposes -Using the labor force, good education of the population in order to develop the secondary and tertiary sector -Using the funds for the development of SMEs -Easy access to the urban and regional market -Development of entrepreneurship and entrepreneurial zones -New investments by domestic and foreign investors	-As soon as urbanization spreads, there is an increase in cost of living - Reducing agricultural land -The possibility of polluting the environment -Migration of the population towards the urban part

Source: Authors

SWOT analysis of the suburban type of the area primarily emphasizes the proximity of the market and the entrepreneurial environment as the strength of this area, where the spatial flows are very pronounced (Table 2). Good infrastructure connectivity enables the rapid development of the entrepreneurial environment, where local people use low taxes and close proximity to the market. The disadvantages of this area are reflected in the lack of certain institutions (payment institutions) and the lack of the cultural events. The chances of development of this environment are reflected in the possibility of developing entrepreneurship and entrepreneurial zone, new investments and opportunities for access to urban and regional markets.

Table 2. SWOT analysis of agricultural areas

Strengths	Weaknesses
- The proximity of the city and the market - Good demographic and educational structure - Well-developed infrastructure - Any sectoral flows - Providing agriculture -Hydro potential for irrigation purposes - Cheaper life and cleaner environment	-Extensive agriculture - Older varieties in fruit growing - Lack of public services (payment transactions, kindergartens for children, police station, veterinary station) -Low sources of income based on urban areas - The lack of holding events
Opportunities	**Threats**
-Regulation of agricultural products on the city market -The possibility of better exploitation of underground and above ground water -The ability to deal with intensive agriculture -Using the proximity of the market -Using human resources in the development of agricultural production and entrepreneurship - Better exploitation of incentives for the development of agricultural activities	- Weather conditions -Migration of the population towards the urban part - With the expansion of urbanization, there is an increase in the cost of living -The possibility of polluting the environment

Source: Author.

The strengths of the agricultural area are reflected in the vicinity of the city, well-developed infrastructure, cheaper life and opportunities for agriculture (strong sectoral flows). The concept of the agricultural area is reflected in the possibility of dealing with intensive agriculture, exploitation of hydro potentials for irrigation and better exploitation of the proximity of the market. Weaknesses are reflected in extensible agriculture, the lack of revenue sources and the lack of specific institutions (payment transactions, childcare facilities, police stations, veterinary stations) and the lack of event holding. The vicinity of the city and future urbanization can lead to more expensive life in the agricultural area. Weather disasters can affect agricultural production.

SWOT analysis of the remote type of the area emphasizes the strengths of natural resources (stone and forest), cheaper life and healthier environment, and the possibility of rural tourism (Table 3). Chances are reflected in the development of rural tourism, the increase in the volume of traditional crafts and the development of the industry for the processing of raw materials of stone and forest. Population aging, receding of population and lack of institutions represent the main weaknesses of this remote area. Constant decline in population can lead to social isolation of this area, where migration towards the city would increase in the future decline of population. According to the Development Strategy of the City of Banja Luka in the period 2018-2027, the emphasis of further development of the city would be on the development of rural tourism based on sustainable development. Where the tendency of modern tourism is based on clean, ecologically unpolluted environments. This sight of tourism also means the development of underdeveloped rural parts of the city, increased employment and a source of additional income for the local population.

Table 3. SWOT analysis of remote areas

Strengths	Weaknesses
- Rich in resources (forest, stone) - Preserved natural wealth - Traditional crafts and products preserved -The possibility of dealing with rural tourism - Good education structure - Well developed infrastructure -Cheaper life and cleaner environment -The ability to deal with agricultural production	-Demographic aging - The lack of a large number of institutions (payment institution, police station, elementary school from 6 to 9 classes, self-service, agricultural pharmacy) -The lack of holding cultural events -Reducing the number of inhabitants - Bad soil quality -Absence of income diversification
Opportunities	**Threats**
-Obtaining rural tourism supply -Branding traditional products - Better use of resources (forest, stone) -Development of secondary industry (stone processing, forests) -The potential for organic farming	- Downturn in the population -Weather disasters -Migration of the population -The lack of a source in income

Source: Author.

6. Perspective of the development of functional links in Banja Luka

The perspective of the development of functional links between rural and urban areas in Banja Luka could be based on a rural-urban partnership. The concept of rural-urban partnership would be based on the potential of these areas. Urban and rural areas have different descriptions of functions that can complement one another and create better socio-economic performance. When developing functional links between rural and urban areas in Banja Luka, the principle of this partnership could be seen in the example of a rural-urban partnership implemented in Amsterdam. The rural-urban partnership project from 2006 to 2010 in Amsterdam was rated as the best example of good practice in the world and was based on combining, linking and increasing incentives in the field of sustainable agriculture and healthy food.

The principle of the development of functional connections between rural and urban areas in the territory of Banja Luka would be managed by the municipality of Banja Luka and local authorities. The aim of the project would be to support the production of organic food as well as the nutrition of inhabitants of urban and rural areas, maintaining local food chains that would interact with rural areas. The strategy of this project would be based on the combination, linking and increasing of initiatives in the field of sustainable agriculture and healthy food. Guidelines that would complement sustainable agriculture and organic food production would be reflected in the promotion of nutrition in primary and secondary schools, healthcare institutions, the organization of catering facilities where locally produced food from rural areas of Banja Luka would be offered. The rural-urban partnership project would also be reflected in cooperation in the

regional food chain and the sale of rural products in the urban environment, the re-use of organic waste, the sustainable transport of food and the use of logistics.

By holding seminars in rural areas, farms could be given guidance to farmers how to operate in this partnership, where local farmers would directly connect with the city market. Institutes for professional training, advisory services would cooperate with small and medium-sized entrepreneurs at the municipal level, supporting the development of functional connections and partnerships between rural and urban areas of Banja Luka. This type of partnership would directly influence the improvement of socio-economic relations between rural and urban areas and would contribute to enabling the development of rural areas, where the local population would have permanent income from agriculture.

Conclusion

All three types of research areas have well developed spatial and sectoral flows, while certain types of spatial and sectoral flows are dominant in a particular type of settlement. In the suburban-industrial type of area, the most important are the flows of currents, such as the flows of people, who mostly have employment in the city, the flows of manufactured goods from this area, and the like. Spatial flows such as the flow of people, goods, money, technologies are clearly present in the interaction of the suburban type of the area with the city of Banja Luka. Agricultural types of areas, in addition to less pronounced spatial flows than in industrial type of settlements, have very pronounced sectoral flows. The main description of the interaction of the agricultural type of the area with Banja Luka can be seen through sectoral flows, where most of the respondents who are engaged in agricultural production sell their products in the urban part of the city through short and long distribution channels, on stalls, markets etc. The diverted type of area possesses strongly dependent conditioned links, due to the lack of specific content, where the inhabitants of these landscapes are conditioned to go to the urban part of the city when visiting most of the content.

In all three types of areas, people's flows are clearly visible, where most of the population in these areas has permanent employment in the city. The good infrastructure connection of rural areas with the city of Banja Luka enables the rural population easy and quick access to the city. The perspective of the development of functional links between rural and urban areas in Banja Luka could be based on a rural-urban partnership. The principle of the development of functional links between rural and urban areas in the territory of the city of Banja Luka would be managed by the municipality of Banja Luka and local authorities.

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