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HUMAN RESOURCES DEVELOPMENT AND INNOVATION AS DETERMINANTS FOR IMPROVING GLOBAL COMPETITIVENESS OF ENTERPRISES

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Abstract: *Human resources and innovation represent important elements of modern business processes. Business success depends primarily on human resources and business creativity in the current global business environment. In a competitive global economy, where other production factors (capital, technology, raw materials and information) can be copied, an organization's human resources become the only source of permanent competitive benefit. In that sense, business entities in a globalized environment have to do business differently. Those radically new conditions require innovation and special quality of human resources, and new knowledge and skills of all actors in the economic arena. Such a business environment requires inventiveness and creativity of the persons managing knowledge and information, who create entrepreneurial atmosphere and create organizations based on innovation and teamwork work to overcome problems that arise from fast organizational change and integration of countries into international economic environment. The primary goal is to provide a better understanding of the roles of human resources and innovation in the performance improvement and competitiveness of global organizations and be of practical use regarding the perception of the importance of human resources management and innovation in modern business.*

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JEL classification: *M21, O30*

RAZVOJ LJUDSKIH RESURSA I INOVATIVNOST KAO DETERMINANTE UNAPREĐENJA GLOBALNE KONKURENTNOSTI PREDUZEĆA

Sažetak: *Ljudski resursi i inovacije predstavljaju važne elemente savremenih poslovnih procesa. U aktuelnim, globalnim uslovima poslovanja, uspešnost poslovanja zavisi prevashodno od ljudskih resursa i njihove kreativnosti u poslovanju. U konkurentnoj globalnoj ekonomiji, gde drugi faktori proizvodnje (kapital, tehnologija, sirovine i informacije) mogu biti kopirani, ljudski resursi jedne organizacije postaju jedini izvor stalne konkurentske prednosti. U tom smislu, privredni subjekti u uslovima globalizacije moraju poslovati na potpuno novi način, a ti, radikalno novi uslovi, zahtevaju inovativnost i poseban kvalitet ljudskih resursa i nova znanja i sposobnosti svih aktera na ekonomskoj sceni. Takav poslovni ambijent zahteva inventivnost i kreativnost onih koji upravljaju znanjem i informacijama, koji stvaraju preduzetničku atmosferu i kreiraju organizacije bazirane na inovacijama i timskom radu, a sve u cilju prevazilaženja problema koji proizilaze iz brzih organizacijskih promena i integracije zemalja u međunarodno ekonomsko okruženje. Osnovni cilj rada je da pruži doprinos boljem razumevanju uloge ljudskih resursa i inovacija u poboljšanju performansi i konkurentnosti globalnih organizacija, kao i da bude od praktične koristi u smislu percipiranja značaja koji upravljanje ljudskim resursima i inovacijama ima u savremenom privređivanju.*

Ključne reči: *ljudski resursi, inovacije, međunarodna konkurentnost, kvalitet upravljanja, globalizacija*

1. INTRODUCTION

Current global economic processes require permanent innovation and improvement of human resources quality. In that sense, the subject matter of research in this work is innovation and human resources quality and analysis of their impact on the competitiveness of international companies. The primary goal of the work is to point to the importance of innovation and human resources quality and important dynamization activities on improvements of stated factors of competitiveness of international companies.

Similar to the established subject matter and goal of the research, the authors of this work will offer answers to the following research questions:

- Can improvements of human resources quality and innovation significantly contribute to economic growth and advancement of competitiveness of international companies?
- Does the readiness of companies to invest in knowledge and recognize the importance of training and development of employees affect the promotion of high-quality business?
- To which degree does inadequate use of modern management methods and techniques result in poor competitive ability in the international market?

Theoretical elaboration and established goals directed authors of the paper to use descriptive, comparative-historical and analytical-synthetic method to consider and understand research problems. In the paper, content analysis was also used of adopted documents and results of the previous research.

The paper analyzes human resources quality and innovation and their contribution to economic growth and advancement of competitiveness of international companies. Human resources quality has a significant impact on companies' value, and human resources management in current conditions becomes all the more important (Zavyalova, Kucherov, & Tsybova, 2017). The analysis focuses on key factors, elements and obstacles for improving human resources quality. In that sense, problems are noted, particularly those faced by global companies struggling for a better position in the international economic arena. Developing awareness of the necessity for innovation and continuous promotion of human resources quality must be a backbone for management approach by managers and leaders in the future.

Modern economies function within global markets, where the success of every actor depends on his ability to be competitive, innovative and flexible. In the context of the current economic crisis and rapid social changes, the ability to introduce novelties and growth of productivity becomes imperative (Patterson et al. 2009). Innovation must basically be within the company, and it must not be anybody's privilege or imposed obligation because innovators in principle must be all employees. Because of the abovementioned, creating a stimulating and inspiring atmosphere in which innovation fever, cramp and nausea replace creative and positive rivalry of new ideas and solutions is necessary.

Managers and researchers can use the results of this research to increase awareness of role and significance innovation, knowledge and human resources quality given the current level of business and competitiveness. Also, the paper provides guidelines on how to empower employees with adequate forms of training by developing and improving their knowledge and business skill.

2. SKILLS OF GLOBAL LEADERS IN LIGHT OF MODERN BUSINESS CONCEPT

Business skills include precise activities which require both learning and practice to be fully realized. Each business skill comprises at least three basic components. These are: *individual traits* - which are inherent to everyone to an individual individually, then *knowledge, and/or formal education* - which is the result of regular schooling or subsequent innovation knowledge and *working experience* - gained over time by way of practical work. Analyzing leadership skills in the administration sector based on immediate observations of clerks in their workplace, Katz (1995, p.14) points out that effective leadership depends on the three primary groups of *individual* skills: conceptual, technical and humanistic. Conceptual skills are related to the ability to work on the ideas and concepts of the future business. Technical skills imply possession of proficiency in using appropriate tools and techniques, while humanistic skills relate to the ability to work with people. This author emphasizes that leaders may acquire leadership skills and that leader can pass through different training programs over time, developing much-needed skills in that manner.

Based on numerous researches, authors Mumford, Zaccaro, Connelly and Marks (2000) formulated a model of leadership based on skills. Considering the fact that they observe the ratio between knowledge and skills, authors point out that knowledge and formal education of the leader are directly connected to their ability to perceive, analyze and solve complex organizational problems. Working experience that leaders acquire during their careers significantly affects the characteristics and competencies of a leader. Mumford, Zaccaro, Connelly and Marks (2000, p.24) point out that the experience that leaders acquire during professional career affects their knowledge and skills regarding problem-solving and that challenging assignments, mentoring, and appropriate training can be helpful to leaders in solving new and unusual problems.

Therefore, the development concept of contemporary global business management includes the component of knowledge, that is, understanding certain theoretical items as well as experience and qualitative changes on the individual level in terms of improvement and acquiring necessary skills. In that sense, the development of skills of global leaders and managers and distribution of their activities through global organization significantly contribute to better

decision making, communication and more successful response to the challenges of the global environment. The key point of this process consists of creating global strategies which serve to form organizations with global structure, after which teams are created for global integration and local differentiation. This includes teams from directorates and branches and other partners for coordination outside the organization.

Researchers have been studying leadership skills for years (see: Katz, 1995; Mumford et al., 2000; Deresky, 2003; Bass, 2008), and decisive incentive to these researches was provided by the famous Article by Robert Katz, published in the Harvard Business Review titled "Skills of an effective administrator," after which there was a series of researches, which represented a basis for a meaningful leadership model based on the skills. Considering that there are many different skills that global leaders and managers can acquire, there is a practical problem regarding their classification, which is present in many scientific studies.

By opting for analysis of business skills of global leaders, authors wanted to point out, especially, the importance of evaluation of cultural differences in the context of contemporary global business. A critical skill for managing people and processes in other countries is knowledge of cultural diversity. In that sense, it is especially emphasized that managers and leaders often deeply neglect the importance of cultural impact. For that reason, many errors are made in global business operations.

In the following text, attention will be paid to the following skills because authors considered them particularly important in the context of global organizations' operations in a complex international economic environment - namely: motivation skills, communication skills, skills of building and leading global teams and skills of developing cultural differences and developing cultural profiles.

- **Motivation skills.**

As part of different theoretical approaches related to motivation, we selected the one that highlights three of the basic elements, and these are: needs, goal-oriented actions regarding satisfaction of needs and goal achievement, that is, the satisfaction of needs - satisfaction (Hodgetts & Luthans, 2003, p.380).

Motivation is a psychological process through which unfulfilled desires or needs lead to action aimed at achieving goals. Motivation represents an essential element of the global management of human resources and is key to the

successful functioning of global organizations. Leaders use motivational skills to provide help to their associates to strengthen team morale and build an atmosphere that inspires their followers to work more efficiently and productively (www.indeed.com).

Leaders are, therefore, strong motivators that inspire their own followers by providing help and encouragement to take advantage of their own creative potential. That way, employees become followers motivated by the leader, and their pleasure leads to their higher efficiency. The growth efficiency of one person is often an excellent example for other employees in the organization, which means that increasing individual effort has positive effects on the organization's overall progress.

Motivation is largely a function of a certain individual's personal life and work context. In that sense, this context is greatly influenced by cultural differences relating to the attitudes of individuals or groups with regard to work. Researching the consequences of cultural dimension on the functioning of global organizations has become available owing to the project "GLOBE" - Global Leadership and Organizational Behavior Effectiveness (Javidan & House, 2001). The designer team consisted of 170 researchers who have collected data on cultural values for seven years and data on practice and leadership of 18,000 managers in 62 states worldwide. Hofstede's research has shown that underestimating the importance of cultural differences in the workplace may result in a significant drop in employees' motivation (Hofstede, 1983).

- **Communication skills.**

Language is a characteristic of mankind that separates him from other living beings and puts him in a seemingly privileged position. According to some theorists, we are biologically forced to communicate (Mandić, 2003). In this sense, communication is one of the most important skills of global leaders, which largely determines their success in running companies.

If a leader is not able to communicate with his/her followers, then even the best strategy or plan is of little use. Good communication includes understanding people and their styles, understanding culture, being well informed, thinking and making correct assessments, holding meetings and participating in them, informing others, understanding how to convey information, sending informal messages, listening and looking positively, etc. Leaders know that their most precious asset is a positive attitude and that it is not easy to maintain a positive attitude. They are aware that there is a lot of negativism in society and that good communication and a positive attitude are the key to developing most business skills (O'Neil & Chapman, 2008).

- **Skills of building and managing global teams.**

The term "global managerial teams" implies a set of managers from a few countries that have to rely on group cooperation. Such form of cooperation contributes to the achievement of optimal success and the achievement of goals of a business organization. Global teams consist of managers and technical staff who belong to different cultures and conduct business activities worldwide. The ability of the team to work effectively together is crucial for the success of global organizations operating in an intercultural business environment. The process of developing effective global teams consists of four characteristic phases: In the first phase, each of the team members comes up with their own expectations, culture and values. In the second phase, team members go through a period of self-awareness, during which they learn to respect the culture of other team members. The third phase is characterized by the development of trust among team members, and in the fourth phase, team members begin to cooperate (Solomon, 1998).

The development of the global market and the strengthening of competition impose the need to create global teams capable of overcoming cultural barriers and enabling efficient operations of global companies. In that sense, the concept of a global team that respects cultural diversity in today's world is gaining importance.

- **Skills of developing cultural diversity and cultural profiles.**

Culture is the basis of communication, and cultural factors are pervasive in the communication process (Samovar, Porter, & Jain, 1981). The ability to solve problems arising from cultural diversity is a special skill required of today's global leaders and managers. Not only that today's participants in economic life must communicate successfully in foreign languages, but they must be able to work with people who do not share their social and cultural experiences (Bell-Rose & Desai, 2005).

Every culture has some characteristics that can contribute to the overall success of a business organization. Each individual's knowledge, attitudes, and cultural background affects his or her ability to send and receive information (Robbins, 1996). Evaluating differences means respecting the different skills of people from different cultural backgrounds. In this sense, a manager must create a climate of respect for each employee individually and the contribution that each of them may make. A critical skill for managing people and processes in other countries is cultural understanding, knowledge of cultural differences. Managers

and leaders often seriously neglect the importance of cultural effects, so many of the mistakes made in global business operations can be attributed to a lack of cultural awareness.

Global managers and leaders can gather significant information about cultural differences from specific research, personal observations, and conversations with people. From these sources, managers and leaders can develop cultural profiles of different countries, that is, they can create a sense of the work environment and human attitudes. Thus, managers can use these profiles to sense drastic differences in the level of motivation, communication, ethics, loyalty, and individual and group productivity that they may encounter in a given country.

3. HUMAN RESOURCES DEVELOPMENT AND TRAINING IN THE GLOBAL BUSINESS WORLD: EXPERIENCES OF INDIVIDUAL COUNTRIES

Employee training is a process of changing the behavior and attitudes of employees to increase the possibilities of achieving goals. The simplest training in the preparation period is to set up an integrator for each job in a foreign country. This person is in charge of creating conditions in which the operational business system will agree with the one that exists in the local culture. The most common topics covered by cultural training include customs, economics, history, politics, social and business characteristics etc. The type of training required of a manager working in a foreign country is influenced by the organization's general global management philosophy. For example, some organizations prefer to send their people to a foreign country, while others prefer to hire local staff whenever possible. There are four positions of global organizations that can influence the training program (Hodgetts & Luthans, 2003, p.483):

- *Ethnocentric global organizations* put their people in key managerial positions. Managers from the head office and their managers working in other countries have the same basic experience, attitudes and beliefs on how to manage a business. Many Japanese organizations follow this business practice (Toyota, Honda).
- *Polycentric global organizations* put qualified members of the local workforce in key positions, allowing them to employ their own people. The head office of the organization gives these managers the authority to manage their affairs, as long as they do it well.
- *Regio-centric global organizations* rely on local managers from a particular geographic region to do business in that area. This approach

relies on regional group cooperation of local managers and is accepted e.g., by the global organization Gillette.

- *Geocentric global organizations* want to integrate different regions of the world through a global approach to decision making. Tasks are assigned according to qualifications, and all branch managers within the organizational structure are seen as equal to those at the headquarters. IBM is one example of a global company with this approach.

All these four philosophical attitudes can be found in the global arena, and each of the global organizations is looking for a different type of training.

Many training techniques are available to managers and task leaders in a foreign country to adapt to new business conditions. These techniques can be classified as:

- field study, i.e., studying the geography of the country, economics, socio-political history etc.;
- cultural assimilators, who expose managers during training putting them in the situations that they are most likely to encounter and that are important for successful interaction;
- language learning, and
- on-site experience - exposes people from other cultures to the culture of a manager during the assignment in a foreign country (Harris & Moran, 1996).

Most corporate training programs take place in the country where the manager comes from before he works in another environment. Although this type of training is suitable, the impact of the new environment may be such that training is needed in the host country, so that the manager can gain a more complete insight into all the differences that await him/her in the new environment.

Employee training and development issues are receiving a great deal of attention in the United States. Training and development are seen as priority areas in this country, and many global organizations have training centers in their organizational structure. Emphasis is placed at all levels on job-related training and the development of employee skills that will contribute to the efficient performance of work. Special attention is paid to the training and development of members of the organization at the managerial level. In this sense, the focus is on many activities with the primary goal to strongly train managers to overcome feelings of insecurity and resist all the challenges of functioning in a changing intercultural business environment. That is why

popular training and development programs include effective negotiation techniques and intensive intercultural communication.

Japan is a country with special cultural characteristics. One of their business culture and business environment features is the so-called presumption of lifelong employment. This dimension of Japanese business culture is positive because workers are seen as the highest value, not as a cost. This means that the employer is ready to invest in training and human resource development programs permanently. There is strong cooperation between schools, universities, and companies in Japan, and the education system has a strong professional orientation.

The development of human resource management is seen in the UK as a priority area. The government has a significant role in staff training, and the Government Agency for Trainee Training implements training programs in line with trade and industry needs.

Human resource training is usually provided by cooperative agreements between companies, public schools, and colleges in Germany. The state controls the internship system, which provides a large number of courses, ranging from language to sports, and the Chamber of Commerce and companies offer additional training for additional qualifications.

Along with the implementation of the transition of the economy and the inclusion of the Republic of Serbia in global business streams, there is a need to organize training programs that can contribute to the development of skills and human resources of national companies in various economic fields. Training programs are mainly conducted through the organization of lectures and seminars within scientific and educational institutions and other organizations. The main goal of the observed activities is reflected in the effort to develop a professional expertise of the participants and their ability to use the acquired knowledge in practice. Training programs can also be conducted in the workplace with the financial support of the National Employment Service. In order to overcome the problems in the first year of business of entrepreneurs - beneficiaries of subsidies for self-employment, a mentoring program is being implemented. The mentoring program includes an overview of the current state of the business, an action plan for solving problems through consulting, expert advice and information provided by trained branch mentors in the business premises of entrepreneurs, i.e., in the Business Center (www.nsz.gov.rs).

4. INNOVATIVE CAPACITIES OF ENTERPRISES AS A FACTOR OF STRENGTHENING GLOBAL COMPETITIVENESS

Competitiveness at the global level is characterized by the willingness of economies to be leaders in the implementation of innovation because business based on innovation has a key role in maintaining competitive advantage. Investing in innovations carries risk and the possibility of gaining a leading position, both at the domestic and international markets. Market participants must innovate and think and do business because reaching a leadership position is an easier way than maintaining it.

Strengthening and advancing innovation leads to the strengthening of national competitiveness (Ciocănel, & Pavelescu, 2015). Innovation has very significant effects on the competitiveness and sustainability of economic growth, both at the micro and macro-economic levels. The World Economic Forum (WEF) defines competitiveness as a set of institutions, policies and factors that determine the level of productivity of a country, so innovation, in this sense, is very important for improving the competitiveness of countries at the international market (Şener, & Saridoğan, 2011).

The process of creating innovation is composed of various activities that interact with each other, and which can be presented in the order of implementation in the following way: gathering information about the problem, research, ideas and development, finding solutions, marketing solutions (Gallouj, 2002, pp.35-36). Innovations, as a process of turning an idea into practical application and technological change, occur in a certain area and are related to local know-how, human resources skills, and the activities of scientific institutions involved in research and development. Circumstances under which local companies operate, economy, society, innovative capacities of enterprises, creative and production culture of the territory, and the area's economic and technological history determine how organizations learn and respond to competition challenges in a certain historical period.

The complexity and quality of the relationships that innovative companies can establish with their environment is crucial for the innovation process. The more direct and permanent the connections are formed (cooperation between local companies and other local participants, for example), the greater the company's integration into its own environment. By definition, the more dependent and irregular these connections are, the less integration occurs.

The goal of the strategies of innovative companies is to improve their competitiveness and market share. Every type of innovation requires the availability of skilled human resources. The creation and diffusion of innovation are crucial in increasing productivity and competitiveness of companies and territories. Product innovations expand production activities and improve companies' competitiveness. Process innovations lead to standardization, reducing production costs and product prices. Organizational innovations reduce transaction and production costs, while incremental innovations reduce production costs and lead to production differentiation, bringing products closer to the market and stimulating economic entities.

Since companies are not isolated economic factors but parts of spatial innovation systems in their broadest sense, the creation and diffusion of innovations will depend on the territorial organization, the mutual interaction of entities that make up the spatial innovation system, and the history of a particular territory. Innovation, therefore, becomes a collective learning process. Recognition of sources of innovation reflects the changing nature of innovation and the variability of the context in which they occur in modern conditions. The growing affirmation of open models of generating innovation in which innovation comes from the external environment has led to an increase in the number of other sources of innovation. Innovation no longer requires only large, vertically integrated business corporations that have the necessary resources, but rather new institutional arrangements are made possible via cooperation and agreement of a larger number of participants.

Most authors think that talents are individuals who represent a high-performance employee and are crucial to the competitive advantage and success of an organization (Berger & Beger, 2018; Nijs Gallardo-Gallardo, Dries, & Sels, 2014). Individuals have ideas for potential new products and services, usually completely independent of any third party or business corporation. Where do ideas come from? Sometimes they are extracted from work (e.g., Bill Gore and the development of Gore-Tex), sometimes they come through sports or hobbies (e.g., Trevor Baileys and mechanical radio), sometimes out of pure frustration due to poor quality and performance of existing products (e.g., James Dyson and a vacuum cleaner without a bag), sometimes due to the existence of a gap in the market, and sometimes from a random set of circumstances (Smith, 2010, p.89).

In fact, the individual as an innovator was the model first noticed by Schumpeter, when he particularly emphasized the character and determination of talented individuals who, not only possessed the genius to develop technical inventions, but also showed perseverance in overcoming the demands of

commercialization which eventually led them to market success (Schumpeter, 1934).

The sustainability of an individual inventor is related to a number of factors. First of all, there is a growth in the number of small business sectors, various organizational connections of a non-property nature, and the growing popularity of start-up companies. Finally, the corporate sector finds it difficult to adapt to the emergence of new disruptive technologies. As a result, some of the new technologies that emerged in the last quarter of the twentieth century helped promote the individual innovator's goal. Some of these technologies have been associated with computers. The examples of Steve Jobs and Steve Wozniak confirm the success of an individual innovator in this context.

Schumpeter's late works presented large business corporations as the main sources of innovation (Schumpeter, 1934). Schumpeter's explanation was that, as innovation became more technology-based so did the need for research and development (R&D). Only large companies possessed the resources necessary for the functioning of research laboratories in which such research can be realized. Research laboratories first appeared in the chemical industry in Germany and very soon after that in the electronics industry.

Industrial R&D laboratories were part of large manufacturing companies during the twentieth century. Large, vertically integrated business corporations have invested in research laboratories whose R&D activities have become a major source of numerous technological discoveries, which have had a huge impact on the development of the industry worldwide. Examples of this approach can be found in the United States, where discoveries in the field of telecommunications have been awarded six Nobel Prizes. In contrast, IBM has picked up three in the field of computer technology. However, the corporate model for innovation generation was not limited to high-tech industries, such as aeronautics, electronics and automotive. Similar examples can be found in the food, detergent, cosmetics and materials industries. Companies such as Procter & Gamble and Unilever have come up with many innovations thanks to their own research and development activities (Prado Perez, 2020).

While there is no doubt that the model of creating innovation in corporations is very significant, it is not the only way in which corporations can innovate. In that sense, we are talking about the affirmation of the so-called open model of innovation, where large corporations come up with new technological solutions by purchasing licensing rights from other companies (Brant & Lohse, 2014). The greater flexibility provided by the open innovation system has enabled

large corporations to continue to play a significant role in generating innovation. However, now they sometimes innovate through the use of licensed technology solutions.

5. GLOBAL INNOVATION INDEX AS A MEASURE OF INNOVATION

The challenge set by the European Council in 2000 in the Lisbon Strategy, according to which Europe should become "the world's most competitive and dynamic knowledge-based economy," presented particular interest in new approaches to economic competitiveness policy. The metrics of the Global Innovation Index are very useful for some countries and a good illustration of the intensity and direction of movement of individual economies in relation to the established goals of development policy.

The Global Innovation Index (GII), as a criterion for determining the innovation of countries, uses seven main pillars (81 indicators in total) that assess the state of innovation based on: national institutions, human resources and research, infrastructure, market sophistication, business sophistication, knowledge and technological achievements and creative achievements.

A specialized UN agency publishes the values of the Global Innovation Index, the World Intellectual Property Organization, in cooperation with Cornell University in New York and the Swiss Multinational Business School INSEAD, which has campuses in Europe (France), Asia (Singapore) and the Middle East (Abu Dhabi). This index measures performance in over 130 countries based on various indicators: level of development and application of science, higher education, number of graduate scientific and engineering specialists in high technology, level of development, application and efficiency of technology and knowledge economy, state of institutions, political stability, the rule of law, state of infrastructure, sustainability of the environment ... The Global Innovation Index is calculated by taking a simple average of a country's results that depend on the prescribed factors that are analyzed. These are inputs (input factors), such as institutions, human capital, infrastructure, market and business sophistication and outputs (output factors), such as knowledge and technological achievements. (Global Innovation Index, 2020).

According to the Global Innovation Index, the leaders in terms of global innovation are Switzerland, Sweden and the United States, which improved its ranking by three places, followed by the United Kingdom and the Netherlands. The group of the most innovative economies in the world includes Denmark, Finland, Singapore and Germany.

Table 1

Global Innovation Index from 2018 to 2020 in the most innovative economies in the world

Country	Score in 2020 (0-100)	Ranking		
		2018	2019	2020
Switzerland	66.08	1	1	1
Sweden	62.47	3	2	2
USA	60.56	6	3	3
United Kingdom	59.78	4	5	4
Netherlands	58.76	2	4	5
Denmark	57.53	8	7	6
Finland	57.02	7	6	7
Singapore	56.61	5	8	8
Germany	56.55	9	9	9
Republic of Korea	56.11	12	11	10

Note. World Intellectual Property Organization. Global Innovation Index. for 2018, 2019 and 2020. Retrieved from www.wipo.int

In the first ten most innovative economies in 2020, there is for the first time another Asian economy, the Republic of Korea, which has made progress compared to the previous two years.

6. GLOBAL INNOVATION INDEX SCORES- A REFERENCE TO THE REPUBLIC OF SERBIA

Political determination around the world to foster innovation and research is permanently present. The period between 2010 and 2020 shows that both developed and developing economies have monitored their innovation performance and worked to improve it, removing obstacles to building strong national innovation systems.

The Coronavirus Pandemic (COVID-19) has led to a global economic halt. The current crisis had hit innovation at a time when it was on the rise. Let us remind

ourselves that in 2018, spending on the implementation of research and development activities increased by 5.2%, i.e., it grew significantly faster than global GDP growth. Political determination to foster innovation has been strong in recent years, including developing countries. This is a relatively new and promising trend towards the democratization of innovation beyond a certain number of the best economies.

Bearing in mind health problems around the world and declining levels of economic activity, the question arises: will global economic growth and political determination to foster innovation fall sharply?

As innovation is now crucial for corporate strategy and national economic growth strategies, there is hope that innovation will not fall so sharply. The pandemic has not fundamentally changed the fact that there is still potential for new technologies and innovations. Companies should not give up research and innovation, and the pharmaceutical and biotechnology sectors are likely to intensify their research in the health sector. The crisis caused by the COVID-19 pandemic could be a catalyst for innovation in many traditional sectors, such as tourism, education and retail.

Table 2

Global Innovation Index 2020 score and rankings of former SFRY Republics for the period 2018-2020

Country	Score (0-100)	Ranking		
		2018	2019	2020
Slovenia	42.91	30	31	32
Croatia	37.27	41	44	41
Montenegro	35.39	52	45	49
Republic of North Macedonia	33.43	84	59	57
Republic of Serbia	34.33	55	57	53
Bosnia and Herzegovina	28.99	77	76	74

Note. World Intellectual Property Organization. Global Innovation Index. for 2018, 2019 and 2020. Retrieved from www.wipo.int

According to the Global Innovation Index for 2020, the Republic of Serbia ranks 53rd and compared to 2018, it has improved its ranking by two. Concerning the former republics of SFRY, it occupies a better position than Bosnia and Herzegovina and Northern Macedonia. At the same time, Slovenia has the best ranking, which fell by two positions compared to 2018, but still

holds the best ranking in the region. The Republic of Serbia is still very far from the most innovative economies in the world.

What is encouraging is that the Global Competitiveness Index GII Report for 2000 stated that Serbia's innovative performance was assessed as significantly better than that expected from countries with Gross Domestic Product such as Serbia. The fact that our country occupied the 67th position in 2014, and in six years, it has advanced by as much as 14 positions, also speaks about the significant progress made by Serbia.

According to the data based on the following table, we can see that the Republic of Serbia, when it comes to human capital and research as innovation indicators of the former SFRY Republics for the period 2018-2020, fell by one position, Bosnia and Herzegovina fell by thirteen positions, while others countries have improved their positions. When we talk about human capital and research, we should emphasize the fact that this factor is very important because it includes general and higher education as the foundation of every society. The international position of our country in the observed area is quite bad. During the crisis caused by the Coronavirus, there were major problems in the functioning of the domestic education system, evident by the decline in the international competitiveness of our leading universities.

Table 3

Human capital and research as innovation indicator of former SFRY Republics for the period 2018-2020

Country	Ranking		
	2018	2019	2020
Slovenia	28	27	26
Croatia	48	50	47
Montenegro	55	56	54
Republic of North Macedonia	76	80	72
Republic of Serbia	58	59	59
Bosnia and Herzegovina	37	37	50

Note. World Intellectual Property Organization. Global Innovation Index. for 2018, 2019 and 2020. Retrieved from www.wipo.int

When it comes to knowledge and development of technology, the Republic of Serbia has improved its position compared to 2018, and it is ahead of Croatia. In the observed period, Serbia has made the greatest progress in this area regarding the number of ISO quality certificates, which shows that domestic companies are starting to invest more intensively in the quality of their products and services. In that sense, it is clear that in the future, we must continue to improve domestic innovation and research activities, as well as the opening of new research centers and institutes, in order to influence the strengthening of innovation processes in all sectors of the economy.

In order to mitigate the consequences of the pandemic and the recession, the Government of the Republic of Serbia, following the example of the governments of the world's largest economies, has established emergency aid packages to prevent short and medium-term effects on the economy, with a direct focus on providing support to companies. However, innovation and research and development have not been set as priorities. Once control of the Coronavirus pandemic has been established, it is crucial that support for innovation becomes broader to avoid a halt in major research projects and possible reductions in R&D expenditure in important economic areas.

Table 4

Knowledge and technologies as innovation indicator of former SFRY Republics in the period 2018-2020

Country	Rank		
	2018	2019	2020
Slovenia	34	40	35
Croatia	46	49	43
Montenegro	96	79	66
Republic of North Macedonia	67	66	58
Republic of Serbia	50	48	41
Bosnia and Herzegovina	74	65	61

Note. World Intellectual Property Organization. Global Innovation Index. for 2018, 2019 and 2020. Retrieved from www.wipo.int

7. CONCLUSION

Human resources and innovation are important elements of modern business processes. Investing in human resources and innovation is a characteristic of companies engaged in implementing new ideas and reacting quickly to impulses from the environment. This is a necessary condition for their successful functioning in order to achieve long-term business success, that is, to achieve profitability and competitiveness. In their future development, modern companies will have to permanently improve the quality of human resources and raise their competitiveness. The key factors for improving the business and competitiveness of companies are: knowledge, i.e., human capital and modern methods and techniques of management. In this sense, knowledge must become a basic strategic resource for modern companies to build their competitive advantage. For companies to improve their businesses, they need to think and act globally.

The application of modern management methods and techniques and the constant improvement of the quality of human resources provide an easier path to the internationalization of business and gaining a better competitive position in the global market.

Innovation is crucial for corporate strategies and national economic growth strategies in the current environment. In this sense, the circumstances under which local companies, economy, society, and innovative capacities of enterprises find themselves determine how companies learn and respond to the challenges of market competition during a certain historical period. Bearing this in mind, the complexity and quality of the relations that innovative companies can establish with their environment is crucial for the innovation process. The current health crisis has affected the entire world, including the Republic of Serbia. As innovation is now crucial for corporate and national economic growth strategies, our country's economic policymakers and business leaders must invest permanent efforts to intensify scientific research and innovation.

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