

The Role of Entrepreneurship in Innovation and Progress

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Abstract: In the world and in our country, we are increasingly talking and writing about entrepreneurship and innovation, so there is often the impression that it is a new economic and technological phenomenon. However, when we look deeper into this area, we will find that it has its deep roots and that it has made a great contribution to the present level of scientific, technical and technological achievements, including digitization. The aim of this paper is to highlight the role of entrepreneurship through many centuries in many innovations that led to the progress of humanity in order for the human race to live more comfortably and create a better future for itself with less effort. In the last few decades, entrepreneurship has been given space in departments of many universities across the globe, and most countries have been using numerous measures to encourage its development.

Key words: Entrepreneurship, innovations, entrepreneurship theories, examples of successful entrepreneurs, digitization of business.

Introduction

Man is the initiator, the bearer and executor of development and, ultimately, he is the enjoyer of the fruits of development. (Levi-Jakšić, M., Marinković, S., J. Petković, J., 2011) It follows from this statement that man has been an innovator and an entrepreneur throughout history and that he still has this role today. In the new EU strategy, the EU's 2020 development goals are: increased employment, increased R&D spending as a basis for innovation development (3% of EU GDP), increased climate change impact with the use of renewable energy sources to reduce greenhouse gases (by 20%), a greater commitment to education and the fight against poverty and social exclusion in the EU. (European Commission, 2010a). (Source: Eurostat/. Because of the great importance of EU SMEs to the EU, they are said to be the "backbone of economic development" of the EU

(Stefanović, Milošević & Miletić, 2009). This was the reason for this paper to „shed more light on the role of entrepreneurs“ throughout history.

1 Theorists on entrepreneurship

The term "entrepreneur" was, in its present meaning, referred to in the 16th and especially in the 17th century. By the mid-17th century, French economists were beginning to use the word "entrepreneur" for people active in the economic field and who were innovating with risk and uncertainty. (Peterson, R.A. 1984) However, speaking of theory of entrepreneurship, undoubtedly, the first of its creators was Richard Cantillon, which he presented in his section "Essay on the Nature of Trade in General", published in 1755. He distinguished three social classes: farmers, entrepreneurs and wage earners, with entrepreneurs engaged in a variety of occupations, ranging from wholesale and retail to crafts, but what they had in common was that they took the risk themselves for their jobs. Cantillon's follower was also a Frenchman, François Quesnay, who, as a physiocrat, called the farmers agricultural entrepreneurs, believing that only in this activity would a positive business result be achieved. (Paunović, B., 2018) In 1800, Jean-Baptiste Say said that "an entrepreneur is in fact moving economic resources from one area, lower one, to another area which is more productive and of higher income." (P. Drucker, 1991). Among American economists, the first to notice the difference between an entrepreneur and a large capitalist was Frances Walker (1876), calling the entrepreneur an engineer of industrial progress and the most important factor in production. (Paunović, B., *ibid*) At the turn of the 20th century, the so-called. "Austrian school" appeared and it attributed great importance to entrepreneurship. The proponents of this school believed that there was dynamic competition in the market, reflected in the competition with prices and better quality of products and services and that entrepreneurs were catalysts for economic change and drivers of economic development. The founder of this school was Joseph Schumpeter, who, among other things, states in his book "The Theory of Economic Development": "Everyone is an entrepreneur only when he really "realises new combinations" (it refers to the factors of production) and he loses that character as soon as he builds his own business and when he settles down and starts running his business like other people."(Schumpeter, J., 2012.) However, he states, "without development there is no profit, and without profit there is no development. He is well known for his term "creative destruction", according to which he believes that by introducing new products and other innovations to the market, entrepreneurs contribute to the growth of social wealth, in other words, it means a permanent destruction of the existing market order. (Schumpeter, J., *ibid*.)

2 Types of entrepreneurship

There are a number of divisions of entrepreneurship, in different periods of their emergence. **Family entrepreneurship** is very widespread throughout the world. Three quarters of all UK businesses are family owned businesses, which are more stable and longer-lasting. In the US, about 33% of family businesses are on the Fortune 500 list as the most successful. In the EU, family businesses employ more than 50% of the active workforce (Radović-Marković, M. 2009). **Rural entrepreneurship**, today more than ever, is an important segment of the economy of many countries. For example, in Canada and the US, SMEs in rural area, account for between 28 and 30% of the total number of established businesses. (Radović-Marković, M., *ibid.*) **Entrepreneurship based on running a home-based business** has been steadily increasing in recent decades, especially in economically developed countries. According to statistics in the US, the number of home-based businesses has increased from 6 million to 32 million in the last 14 years. It is estimated that about 8493 new businesses are started daily. (Radović-Marković, M., 2007) **Women's entrepreneurship**, although it has existed throughout history, only gained recognition by adopting the Employment Service Convention, adopted by the International Labor Organization (ILO) in 1948. That act emphasized the prohibition of all types of exploitation and discrimination against women, including employment opportunities. (Markovic-Radovic, M., 2009) **Social entrepreneurship** creates around 8% of new jobs in Europe, creating around 3.5 million jobs in the EU. (Smallbone, et.al. 2004) Unlike other types of entrepreneurship, profit is not the only goal for social entrepreneurship. Most often, this is about providing social services: care for the elderly, health care for the sick and infirm, care for the disabled, care for the homeless, assisting the unemployed with access to work by providing additional education and more. International entrepreneurship first appeared in theory in the 1990s. Famous American scientist J.F. Morrow published an article in 1988 stating that international entrepreneurship was being created thanks to new information technologies, creating new markets that had not been used before. (Morrow J.F., 1988.) **Global entrepreneurship**, in addition to large companies, extends to the whole world due to its great flexibility and communicability. Apart from the many benefits of global entrepreneurship, the renowned economist, Nobel Laureate Prof. J. Stiglitz also finds the downside by stating that, from the point of view of nation-states, this will further increase the gap between the rich and the poor. (Stiglitz, J., 2002) **Internet entrepreneurship** is the most modern form of entrepreneurship. As they leave college, the so-called online generation, are already starting to work, using extraordinary digital tools that give an individual the power that used to be reserved for the authorities in the past. They are the first global generation and spread new rules of business conduct around the world, so we have the opportunity to learn from them. (Tapscott, D., 2011)

3 Innovations and entrepreneurship– similarities and differences

We want to emphasize here that there are nevertheless differences in the concept of innovation from the concept of entrepreneurship. It is assumed that the word "innovation" is derived from the Latin word "innovatio", which means - new, novelty, or from the word "innovare", to make something new, and "novus" - new. (Amidon, D., 2003). The most important thing is that the end user (customer, consumer) recognizes and accepts the innovation, because the effect of its commercialisation depends on it. In the modern age, definitions of innovation are increasingly being given. According to the Organization for Economic Co-operation and Development (OECD), innovation is "the application of a new or substantially improved product (i.e. physical goods or service), process, new marketing method or new organizational method in business practices, workplace organization or external relations. (OECD, 2010) Innovation is key as it encourages economic growth and development, increases employment and employee income, and improves the quality of life as well as the competitiveness of nations. (Atkinson, R., Ezell, S. 2014) More significant innovation is, as a rule, accompanied by intellectual property rights, genetic engineering, primarily in the case of patents, copyrights, trademarks / service marks and other forms of intellectual and industrial property, which are largely enjoying international and domestic protection. This is not the case with entrepreneurship, as, in most cases, it does not enjoy such protection.

4 Position of Serbia on Global Innovation Index list

Each year, a Global Innovation Index (GII) list is issued for 129 countries based on 80 different indicators. In the 2019 GII list published by the UN Specialized Agency, the World Intellectual Property Organization (WIPO), in cooperation with New York University Cornell and the Swiss multinational business school INSEAD on June 24, 2019 in Delhi, Serbia ranks 57, which is close to the middle in the ranking of upper-middle income countries, whereas in the group of upper-middle income countries it is in 11th place, as can be seen from the following table.

Table 1 – GII RANKING OF UPPER-MIDDLE INCOME COUNTRIES

Country/economy	Score	World ranking	Ranking in same income group	Region	Ranking in region
China	54,82	14	1	SEAO	4
Malaysia	42,68	35	2	SEAO	8
Bulgaria	40,35	40	3	EUR	27
Thailand	38,63	43	4	SEAO	10
Montenegro	37,70	45	5	EUR	30
Russia	37,62	46	6	EUR	31
Turkey	36,95	49	7	NAWA	5
Romania	36,76	50	8	EUR	33
Costa Rica	36,13	55	9	LAC	2
Mexico	36,06	56	10	LAC	3
Serbia	35,71	57	11	EUR	34
North Macedonia	35,29	59	12	EUR	36
Iran	34,43	61	13	CSA	2
South Africa	34,04	63	14	SSA	1
Armenia	33,98	64	15	NAWA	7

Regions are classified according to the UN classification: EUR- Europe; NA-North America; LAC- Latin America and the Caribbean; CSA-Central and South Asia; SEAO- South East Asia and Oceania; NAWA-North Africa and West Asia; SSA-Sub-Saharan Africa. Source: Cornell University, INSEAD and WIPO (2019)

At the top of the GII list are innovation champions, Switzerland, Sweden and the USA. America has primacy in developing R&D clusters (26), followed by China (18), Germany (19), France (5) United Kingdom (4) Australia, India, South Korea and Switzerland (3 each). As in 2018, Tokyo-Yokohama, Japan topped the list of top ten clusters, with more than 95,000 patents registered between 2011 and 2015, according to the Financial Times, accounting for about 10% of the total registered 950,000 patents worldwide. The largest patent changes registered in Tokyo are used by Mitsubishi Electric, followed by Shenzhen Hong-China (China) with more than 41,000 patents, followed by the Silicon Valley Jose-San Francisco Cluster with more than 34,000 patents.

5 How entrepreneurship and innovations contribute to economic development?

The USA and South Korea examples

Had the United States and South Korea adhered to the liberal theory of Britain's Adam Smith, outlined in the "An Inquiry into the Nature and Causes of the Wealth of Nations" (known as "Wealth of Nations"), published in 1776, they would probably be classified as developing countries nowadays. Instead of the countries among the seven most economically developed in the world. German economist Friedrich List, known for his theory of national economics, criticized Britain in the mid-19th century for preaching free trade, noting that the country "pushed the ladder" when it reached a dominant position in the world economy through customs and abundant subsidies. (Chang, H.J., 2016) From this behaviour of Britain, a conclusion can be drawn - do as we tell you, not as we did. When Alexander Hamilton became the first US Treasury Secretary in 1789, he submitted a Report on the Subject of Manufacturers to the Congress. In that report, he suggested 11 measures that should protect the "developing industry" because the US was a backward country, unprotected from foreign competition. Among these measures, in addition to protective tariffs, the ban on the export of raw materials and subsidies, special subsidies were introduced for technological innovation in key industries and innovation and discovery in the country and their import from other countries in the US was encouraged. (Alexander Hamilton 1789 Report). After a three-year fratricidal war (1950-1953), South Korea was among the most economically undeveloped countries in the world with GDP per capita below \$ 100. Its main export products were tungsten ore, fish and other crude and unprocessed products. Thanks to its own concept of economic development, the country's economy adopted its economic agenda between the 1960s and 1980s. The government, in consultation with private entrepreneurs, introduced customs protection measures, abundant subsidies and other forms of government stimulus with the marketing support of the State Export Support Agency. Today's South Korea is one of the most inventive countries in the world, regularly ranked in the top five countries by the criteria of the largest number of patent applications granted each year by the US Patent Office. (Chang, H.J., *ibid.*)

6 What do start-ups and digitalization bring?

The digital or online generation matured in 2008. Across the world, the generation overwhelms jobs, market and every niche of society. According to Don Tapscott (Tapscott, D. 2011), they bring their demographic strength, media intelligence, purchasing power, new models of collaboration and growing up, entrepreneurship and political power to the world. Robert Atkinson and Stephen Ezell believe that

the economics of innovation not only give priority to the digital era, but also see competitiveness in it that ensures faster economic progress of modern society (Atkinson, R., Ezell, S., 2014). The digital economy is virtual as well, and they lean on each other, as the authors of the book *Digital Economy* V. Lazović and T. Đuričković point out. (Lazović, V., Đuričković, T., 2018). Using the benefits of the digital economy and start-ups, China and India are now among the fastest growing economies in the world. In India, the fourth industrial revolution, or digitalisation, is in a big swing, which is why so much is being invested in high-speed internet. E-government, in this country, has improved government efficiency and linked more than one billion people with biometric cards. If you want to progress you have to be digital, is their life philosophy. India expects the IT industry to account for 7.5% of the country's GDP in 2020. (News Front news agency, retrieved 6/09/2019.) In the US, many trading houses are failing because they were not timely reoriented to sell online. Let us mention, at the end of this part of the presentation, that this year (2019) marks the decade since the latest invention in the field of digital technology, block-chain technology, on the basis of which a platform for crypto currencies (bitcoin and thousands of other crypto currencies) was introduced. Therefore, some countries are already working on using this technology in economic and social life, especially where there is a high risk of fraud and malversation. (Vasić, V., 2019).

7 Case studies – the most successful entrepreneurs

McDonald's - the most successful small business in the world: there is an interesting example of the most successful small business in the world, as McDonald's calls itself - a fast food restaurant, which now operates in over 120 countries in over 35,000 locations and has a daily capacity of over 70 million people. (M. E. Gerber, 2010, p.71) However, Ray Kroc created much more than an incredibly successful business. He created the model by which an entire generation of entrepreneurs created their wealth - a model that represents the genesis of the franchise phenomenon. The real ingenuity of Kroc's McDonald's is in the franchise's business model. The franchise's business model is what brought a revolution to American business. (M. E. Gerber, *ibid.*, p. 72) Namely, the franchisee was not interested in burgers, fries, or milkshakes, he was interested in business. Driven by the desire to buy a business, the franchisee was only interested in one thing: "Does it work?" Herein lies the secret of the success of the franchise business model, it is a stepping stone to the "Turnkey" revolution. (Gerber, M.E., *ibid.*). Peter Drucker points out that McDonald's is an example of entrepreneurship, though he did not find anything because its final product was what any American restaurant had produced for years. It is, in fact, entrepreneurship. (Drucker, P., *ibid.*).

Henry Ford - An example of a successful entrepreneur: The famous industrialist, Henry Ford (1863-1947) is very often taken as an example of a successful entrepreneur. He was the son of a wealthy farmer, born in the US state of Michigan but interested in the technical sciences from an early age. He took a job at Edison Company, where he served as the Chief Engineer servicing steam engines. At the same time, he was engaged in experiments on internal combustion engines in which Edison supported him, where in 1898 he constructed his own car. In 1903, Ford, with a group of innovators, founded the Ford Motor Company, in which he became the director as well, and at the age of 43, as an independent entrepreneur, he became its co-owner, doing well business. Thanks to the conveyor system, Ford (since 1908) had dramatically increased its productivity and produced 19 million cars at very reasonable prices in 19 years, with 14,000 workers receiving decent remuneration. Thus, he built up his financial power and already in 1919 bought all the shares of the Company and with his family, only after 40 years of hard work, achieved his intended goal. As other carmakers went on to diversify cars for buyers with greater purchasing capacity, Ford experienced its first failure. This is why they started diversifying products as well. (Figar, N., 2012) Today, Ford's factories operate in over 50 countries, employing hundreds of thousands of workers and producing over ten million cars a year. (Radovic-Markovic, M. *ibid.*)

John Rockefeller - the first entrepreneur to make over a billion dollars: Entrepreneurship is "part of the American DNA", according to Prof. D. Golijanin in the review of the book "Entrepreneurship", it is not surprising that Rockefeller (1839-1937) became a great industrialist and investor (Avlijaš, R., Avlijaš, G., 2017). At the age of twenty, he founded his Clark & Rockefeller company for \$ 2000 with Englishman M. Clark, selling farm equipment, hay, fertilizer, meat and home supplies. At the end of the first year of business, they had gross capital of \$ 450.00 and a net profit of \$ 4,400, and in the second year the profit was \$ 17,000. In 1868 he founded Standard Oil Company, which covered 10% of the market, whereas in 1879 it reached 90% of US oil refining. Rockefeller was the first entrepreneur in human history to earn more than a billion dollars and at the same time the richest man in recent human history. Rockefeller once said: "If your only goal is to get rich, you will never succeed in it." (Avlijaš, R., Avlijaš, G. *ibid.*)

Conclusion

The introduction of this paper states that man is the engine of development throughout history and that he did it in his own interest, to live more comfortably with less invested labour. At the same time, he is both an innovator and an entrepreneur, because everything he creates serves other people and, ultimately, the whole world. Historically, from an early age, from coming up with an invention to its practical application, many years and decades had passed, whereas today every innovation is very quickly put to use and, thanks to modern information technologies, expanded to the whole the world "overnight". For this reason, it is superfluous to say that entrepreneurship is something that came into

being in the late 20th and early 21st centuries. It would be more correct to say that innovation and entrepreneurship are the "conditio sine qua non" of the progress of humanity. However, the extent to which creators of economic thought were able to perceive the creative power of a certain number of people, in certain realistic circumstances, is a matter of longer observation, monitoring and analysis. Over the centuries, interpretations of entrepreneurship and innovation have changed significantly. The IT sector is sharply increasing the share of the services sector in the GDP of certain countries. For example, India, which we mentioned in the paper, is one of the fastest growing economies in the world (in 2018 its growth was 7.1%), precisely thanks to the digitization of business. In the last year (2018) its GDP was US \$ 2,716 billion, and next year (2020) it is expected that 7.5% will come from the IT sector (which is over US \$ 200 billion). (countryeconomy.com/gdp/india) From the global competitiveness list for 2019, which includes 129 countries based on 80 criteria, where Serbia ranks 57th, a correlation can be observed between the percentage of GDP allocated to science and technology development and the number of patents filed by individual countries. At the top of the Global Innovation List are the most industrialized countries, with the largest percentage of GDP allocated to science and technology, led by the United States, Japan, South Korea and Switzerland, followed by emerging countries, China and India.

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