STUDIA PRAWNO-EKONOMICZNE, T. CXVIII, 2021
PL ISSN 0081-6841; e-ISSN 2450-8179 s. 303–320
https://doi.org/10.26485/SPE/2021/118/16

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INNOVATIVENESS AS A DRIVING FORCE AND AN OPPORTUNITY FOR ECONOMIC GROWTH

Abstract

Background: The subject of the article's research is the broadly understood idea that innovation contributes to economic growth. Economic growth is one of the most important research issues undertaken in the scope of economic sciences. Modern phenomena and socio-economic trends indicate that innovation as an element conditioning the economic growth of countries. We are forced to pay attention to factors such as knowledge, experience, creativity, and what binds them together, innovations being the products of creative effort. Innovative activities are designed to support the well-being of citizens and society, as well as to provide industry and enterprises with a competitive position on both domestic and international markets. Societies need innovation to achieve a high quality of life: new products, services, technologies, and organization systems. New products are often modelled on known ones, through specific changes, improvements, or simplifications of own or foreign products whereas new ideas, in general, have their source in knowledge.
Research purpose: The aim of this article is an attempt to answer the research question: "why innovation is a key factor in economic development and growth?" To start with, the pioneering definition of J. Schumpeter regarding innovation in economy was reviewed, by i.a. Ph. Kotler, M.E. Porter or R.W. Griffin and selected Polish scientists. The following subchapters present types of innovation and the role of innovation processes in the modern economy, as well as results of studies convincing of the significant role of innovativeness in the economy.
Methods: Literature analysis was used as the research method. The first part reviews the terms of innovation and innovativeness.
Conclusions: The following conclusions emerge from the article: a country's economy achievesa higher economic growth, the better it uses the resources at its disposal, such as: natural conditions, financial resources, material capital created by people, and those to which increasing importance is attached, i.e. knowledge resources: patents, scientific and expert support, human resources, skills, creative potential as well as cultural capital, meaning attitudes and values related to innovation. Enterprises, through innovations, improve and update production processes, increase productivity, efficiency, and quality of work, which translates into higher employee remuneration.

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An innovative enterprise, increasing the quality of its products and the overall efficiency as well as effectiveness of its operations by improving organization and working methods, becomes more competitive on the market.

Keywords: innovation, innovativeness, innovation process, economic growth, economic development, competitiveness.

JEL classification: O31

1. Introduction

> "Innovation is a specific entrepreneurial tool ... action, which gives our resources a new field to earn money".
> Peter F. Drucker

Recent decades have brought about significant changes in the functioning of the world economy and national economies. Differences that exist on the level of national economic development somehow "require" answering the question of what was their cause. The reasons for this state of affairs, in the case of some prosperous or impoverished countries, can be sought in historical conditions, geographical location, as well as in access to economically important raw materials. However, in modern times other equally major factors have emerged: knowledge and technology. They largely determine the innovativeness of a given economy, i.e. its modernity, development dynamics, and competitiveness. Innovations based on advanced technologies constitute the basis for the development of the most economically developed countries. The globalization processes in the world economy and the progressing economic integration necessitate systematic verification of views on the conditions of both economic success and failure.

Economic growth associated with progress is one of the most important phenomena in the global economy. Interest in this topic flourished in the 20th century, but this does not mean it had not been the subject of scientific considerations before.

The words: "laissez faire, laissez passer" ("let act, let go forward"), uttered at a meetings of the physiocrats, gave rise to the trend of classical economics, represented by A. Smith, D. Ricardo, T. Malthus and K. Marx[1]. The last mentioned was the one among the classics who treated innovation and machine improvement technology as the basis for gaining profit. The notion of division of labour as the main factor of economic growth is associated with the name of A. Smith.

[1] https://czasopisma.uni.lodz.pl/gospodarka/article/view/1182/851; accessed 18.10.2020.

Moreover, he appreciated the role of technological innovations in the development process[2].

Models of economic growth can be divided into two groups: neoclassical and endogenous models. The first ones include those of R. Solow, F. Ramsey and P. Diamond. The neoclassical growth theory does not explain the determinants of long-term economic growth well. Here, long-term economic growth depends on broadly understood technological progress, which is exogenous in nature[3].

According to the concept of endogenous development, the potential of a given area is the main factor stimulating the development processes present therein. The basic models of endogenous development include those by Robert E. Lucas as well as by Paul M. Romer, which are based on the assumption that the volume of production is a function of capital (physical, human) and the current technological level[4].

In endogenous theories, employees are treated as an element capable of actively influencing and creating changes in the production process, and therefore a huge role in increasing productivity is assigned to human capital and knowledge. Romer included the learning process in his analysis, noting that, thanks to the associated external benefits, knowledge inspired by private investments becomes publicly available[5]. In the endogenous theory, economic growth is the result of learning by action taking place inside companies, industries, or metropolitan areas[6].

In the above concept, in order for a region's economy to be highly developed, one one of three scenarios should take place[7]:

- the accumulated and consciously created human capital (skills, also tacit knowledge) is used and the processes of "learning" are stimulated,
- the existing social capital (e.g. people's tendency to act together) is used,
- the advantage of cooperation and relations between the economic entities operating in the region is taken.

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2 **A. Smith**, *Badania nad naturą i przyczynami bogactwa narodów*, vol. 1–2, PWN, Warszawa 1954.

3 https://web.sgh.waw.pl/~mproch/Z_teoria_wzrostu/modele_wzrostu.pdf; accessed 18.10.2020.

4 https://czasopisma.uni.lodz.pl/gospodarka/article/view/1182/851; accessed 18.10.2020.

5 **P.M. Romer**, *Endogenous Technologichal Change*, Journal of Political Economy and Technological Change 1990/98 (5), p. 12.

6 **B. Carlsson**, *Technological Systems and Economic Performance*, in: **M. Dogdson**, **R. Rothwell** (eds.), *Handbook of Industrial Innovation*, Edward Elgar Publishing, Aldershot 1994, p. 23.

7 **S. Korenik**, **A. Zakrzewska-Półtorak**, *Teorie rozwoju regionalnego – ujęcie dynamiczne*, Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2011, p. 54.

As the experience of highly developed countries shows, long-term and stable economic development can be particularly guaranteed by building a knowledge-based economy. The key factor to building it is the innovativeness of enterprises understood as the ability of entrepreneurs to manufacture new products, introduce new services, and put them into the market.

The knowledge-based economy means a gradual transition from a material-intensive economy to an economy that uses the potential of science. Non-material resources, especially human capital, knowledge, and new technologies gain importance. Therefore, development opportunities will be increasingly determined by human intellectual potential and knowledge related to the latest achievements of modern science.

The race for success, in which contemporary enterprises take part, has led to a situation in which entrepreneurs, in order to obtain an effective competitive advantage, try to outdistance others in finding everything that is innovative and difficult to copy. Generally, both business theoreticians and practitioners agree that currently one of the key factors of enterprise competitiveness is innovation[8].

The ability to quickly introduce modern technological, technical, organizational, and managerial solutions determines economic competitiveness. In turn, competitiveness based on a properly stimulated and targeted increase in innovativeness contributes to the development and sustainable growth of jobs in emerging and developing enterprises and in their cooperative and service environment[9].

Running a business forces enterprises to undertake broadly understood economic activity in many areas, and the scope of activity itself depends, among others, on factors influencing the profile and type of business activity that may have the character of two determinants: internal (dependent on the enterprise) and external (related to the environment). These factors are very dynamic, both their essence and the scale or intensity of impact change, which means that the existence of a company thatis not focused on growth and development suffers slow decay[10].

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[8] **A. Czarnota**, *Wpływ innowacji na konkurencyjność przedsiębiorstwa*, „Zeszyty Naukowe Instytutu Ekonomii i Zarządzania", Politechnika Koszalińska 2009/13/1, p. 81.

[9] **A. Tuziak**, *Innowacje jako instrument pobudzania wzrostu gospodarczego i ograniczania nierówności w regionie Podkarpacia*, in: *Nierówności społeczne a wzrost gospodarczy. Aspekt międzynarodowy, sektorowy, regionalny i lokalny*, no 5, Rzeszów 2004, p. 261.

[10] **W. Janasz**, *Przedsiębiorstwo wobec rosnących wyzwań przyszłości*, in: **W. Janasz** (ed.), *Innowacje w modelach działalności przedsiębiorstw*, Uniwersytet Szczeciński, Rozprawy i Studia 2003/DXX/446, Szczecin, p. 58.

To sum up the above considerations, the modern dynamics of the economy and the pace of economic development require enterprises to constantly introduce new or improved technological, organizational, or marketing solutions in order to effectively compete on the market and contribute to broadly understood economic growth. Innovations are, therefore, determinants of the driving force behind the development of the economy, creating demand for new products that facilitate or increase comfort and quality of life.

2. The concept of innovation and innovativeness of enterprises

The multifaceted and interdisciplinary nature of innovation indicates that there is no single universal definition.

The definition of innovation was introduced to the economic sciences for the first time by J. Schumpeter in 1911 and referred then to five cases[11]:

1) introducing a new product that consumers have not yet dealt with or giving the product new features,
2) introducing a new production method not yet tried out in a given industry,
3) opening a new market, i.e. one in which a given type of domestic industry has not previously operated, regardless of whether the market had existed before or not,
4) obtaining a new source of raw materials or semi-finished products, regardless of whether this source has already existed or had to be created,
5) introducing a new organization structure for some industry, e.g. creating a monopoly or breaking it.

J. Schumpeter claimed that the creation of knowledge, i.e. invention, is something completely different from innovation – introduction of knowledge into production. Some inventions are never applied and sometimes it takes a long time to put them into practice. Many inventions never lead to innovation, and many innovations do not require an invention. J. Schumpeter argued that it is not the invention itself but the willingness to change production that determines whether innovation would be introduced. He believed that only the first application of an invention has features of originality, requiring the involvement of particularly talented individuals and incurring high risk, whereas imitations are mere copying[12].

[11] **K. Kozioł-Nadolna**, *Internacjonalizacja działalności badawczo-rozwojowej w kształtowaniu procesów innowacyjnych przedsiębiorstw w Polsce*, Cedewu, Warszawa 2013, p. 104.

[12] *Ibidem*, pp. 105–107.

A significant change in the perception of innovation was introduced by P.F. Drucker who identified it with the tools of entrepreneurs with which they can start a new business or provide new services. He also emphasized that innovation and entrepreneurship have become an integral part of economic activity, which gives an impulse for the development of enterprises and the entire economy[13].

According to M.E. Porter, innovative activities are a source of competitive advantage for enterprises and that innovation can emerge as a new product design, new production process, new marketing approach, or new training methods[14].

Ph. Kotler approached the essence of innovation from his own respective field of marketing. He decided that it was goods, services, or ideas, perceived by someone as new. The idea may have existed for a long time, but it was an innovation for the person noticing it as new[15]. R.W. Griffin considers innovation to be the organization's directed effort to master new products and services or new applications of existing products and services[16]. Innovation is seen as "the engine of the modern economy, transforming ideas and knowledge into products and services"[17].

A different understanding of the aforementioned definitions of innovation was presented by G. Silverberg who claimed they are a result of the impact of internal factors, such as expenditure allocated by domestic economic entities on R&D or investment in education of human capital. He believed that with properly trained staff the innovation possibilities of business entities increase and thus result in economic development. There are also many definitions of innovation in Polish economic literature. S. Gomółka defines innovation as an act of qualitative change in economy when the production of a new product begins (application of a new process), as well as the product itself (process)[18]. According to A. Pomykalski, these are all research and development processes aimed at applying and using improved solutions in the field of engineering, technology,

[13] **P.F. Drucker**, *Innowacja i przedsiębiorczość. Praktyka i zasady*, PWE, Warszawa 1992, p. 29.

[14] **M.E. Porter**, *Porter o konkurencji*, PWE, Warszawa 2001, p. 202.

[15] **Ph. Kotler**, *Marketing. Analiza, planowanie, wdrażanie i kontrola*, Gebethner i Ska, Warszawa 1994, pp. 15–28.

[16] **R.W. Griffin**, *Podstawy zarządzania organizacjami*, PWN, Warszawa 1996, p. 646.

[17] **Department of Trade and Industry**, *Competing in the Global Economy: The Innovation Challenge, Department of Trade and Industry*, London 2003.

[18] **S. Gomułka**, *Teoria innowacji i wzrostu gospodarczego*, Wydawnictwo CASE, Warszawa 1998, pp. 17–20.

and organization[19]. S. Marciniak, on the other hand, considers them as creative changes in the social system, economic structure, technology, and nature[20].

An attempt to organize the definition is the Oslo Manual proposal where innovation is understood as the implementation of a new or significantly improved product, process, new marketing method, or a new method of organization in business operations, workplace organization, or external contacts[21].

Common elements of different definitions include: change, novelty, and focus on creating value. If our understanding of innovation is too general, it raises difficulties of interpretation and doubts as to whether any change can be an innovation, what criteria it should meet, what effects it should cause, what should be taken as a criterion for novelty, *etc*. It is therefore justified to clarify this definition and assume that innovation is an intentionally designed change by a human being regarding: product (the first introduction into production and market of new or significantly improved products or services), production methods (the first application of new or significantly improved methods in production), work organization and production (the first introduction of new organizational solutions in structure and process or ones significantly improved), management methods and marketing methods used in a given community for the first time (the smallest community is an enterprise) to achieve socio-economic benefits, meeting specific technical, economic, and social criteria[22].

Innovativeness is defined as the development and implementation of new ideas by people who engage in transactions with others in an institutional order over time. This definition focuses on four basic factors (new ideas, people, transactions, and institutional context)[23].

Innovativeness precedes innovation. An enterprise cannot create innovation without being innovative. Innovativeness is a process in which new ideas are generated and are used along with inventions which when implemented into an organizational system would become innovations. Innovations are therefore a complex concept that combines creativity, innovativeness and

[19] **A. Pomykalski**, *Zarządzanie innowacjami*, Wydawnictwo Naukowe PWN, Warszawa–Łódź 2001, pp. 10–11.

[20] **S. Marciniak**, *Innowacje i rozwój gospodarczy*, Kolegium Nauk Społecznych i Administracji Politechniki Warszawskiej, Warszawa 2000, p. 11.

[21] **O. Manual**, *Zasady gromadzenia i interpretacji danych dotyczących innowacji*, ed. 3, Komisja Europejska, OECD, p. 48.

[22] **J. Baruk**, *Istota innowacji. Podatność społeczeństw na innowacje*, Marketing i Rynek 2009/3, p. 13.

[23] **A.H. Van de Ven**, *Central Problems in the Management of Innovation*, Management Science 1986/32/5, p. 590.

inventions. Innovativeness makes creating innovations possible because innovations are the result of innovativeness[24].

Innovativeness in literature is most often translated as[25]:

- the ability to generate and implement innovations that gain recognition among recipients as a result of a high level of modernity and global competitiveness,
- the ability to continuously seek, introduce, and disseminate innovation,
- the ability to create and introduce changes in various aspects of socio-economic life,
- the ability to create innovation.

There are many typologies in terms of innovation classification that clear the way in the aspect of enterprise and economy innovativeness research.

By applying the objective criterion for the division of innovations, they can be divided into economic, organizational, technical, marketing, eco-innovative, *etc*.

In the Oslo Manual, four main types of innovation are distinguished[26]:

1. Product innovation is the introduction of a product or service that is new or significantly improved in terms of its features or applications. These include significant improvements in terms of technical specifications, components and materials, built-in software, user-friendliness or other functional features.
2. Process innovation, i.e. innovation in the scope of process, is the implementation of a new or significantly improved production or delivery method. This category includes significant changes in technology, devices and/or software.
3. Marketing innovation is the implementation of a new marketing method involving significant changes in the product design, its construction or packaging, distribution, promotion, or price strategy.
4. Organizational innovation is the implementation of a new organizational method in the operating principles adopted by a company, in the organization of workplace or in relations with the environment.

In literature regarding economy the so-called theory of innovation can be divided into two main research directions: microeconomic, which subject is the

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[24] **A.I. Younis**, **Y. Nor'Aini**, *Innovation Creation and Innovation Adoption*: *A Proposed Matrix Towards a better Understanding*, International Journal of Organizational Innovation 2010/3/1, p. 312.

[25] **T. Ball-Woźniak**, *Innowacyjność w ujęciu podmiotowym. Uwarunkowania instytucjonalne*, PWE, Warszawa 2012, pp. 21–22.

[26] **O. Manual**, *Zasady gromadzenia i interpretacji danych*…, pp. 50–53.

analysis of market structures, building competitive advantage and generating profit, as well as macroeconomic, related to the impact of innovation on economic growth and development[27]. The term of aforementionedcompetitiveness is usually understood as a set of features that enable to maintain stable socio-economic development. Competitiveness can be reflected by integrated and multidimensional development, it can also emerge in various fields of competition where a place in rankings measures competitiveness[28].

Innovations implemented into an enterprise are a key factor of its competitive advantage which in turn leads to economic development and growth.

Innovations usually begin with small-scale activities, e.g., the implementation of new technology in the enterprise that had developed it. However, to be able to see all positive effects of a given innovation, it must cover the whole economy and equally favourably affect enterprises of various sizes from various sectors. Specialists call this process the diffusion of innovation[29].

The above overview of selected definitions shows that there is no one universal definition. In principle, innovations apply to all spheres of life, ranging from new, better, more progressive solutions regarding economic and social life to new streams of thought. However, it is possible to point out certain elements repeated in definitions, the most important of which are: subject (an enterprise, a human being), object (technology, market, organization), novelty value, dissemination, and implementation and finally a positive, developmental impact on improving the overall quality of life.

3. Innovativeness and economic growth

The concept of an innovative economy is as difficult to define as innovation or innovativeness alone. Innovation as the introduction of something new is a concept that has accompanied man for centuries. The invention of the wheel by the ancient Sumerians can be safely described as the greatest invention of humanity. Its discovery was not so simple as there are neither examples of a wheel nor rotary motion in the nature that surrounds us. The wheel had been initially used to transport food, then was strengthened to be used in chariots and carts. Finally,

[27] **D. Firszt, Ł. Jabłoński**, *Kapitał ludzki i innowacje a zmniejszenie luki rozwojowej między krajami*, Cedewu, Warszawa 2016, p. 63.

[28] http://kolegia.sgh.waw.pl/pl/KGS/struktura/IGS-KGS/publikacje/Documents/Raport_Polska%202017.pdf; accessed 15.01.2020.

[29] https://www.ecb.europa.eu/explainers/tell-me-more/html/growth.pl.html; accessed 15.01.2020.

the water wheel was one of the first innovations replacing the strength of human muscles with the work of a machine.

A classic example of innovation is the development of the steam engine in the 18th century. It was applied in factories and enabled mass production, as well as revolutionized rail transport. More recently, however, information technology has changed the way goods are produced and sold, services rendered, creating, in the meantime, new markets and business models[30].

Innovation as a development factor has not been noticed until the beginning of the 20th century. The aforementioned J. Schumpeter conferred on innovations a wide meaning including the concept of product and production methods, supply, reorganization, and opening of a new market. He expressed the belief that the introduction of such changes by companies shatters stagnant balance and becomes an opportunity and a driving force for development[31]. In the 1980s, innovations ceased to offer a chance for business and economy development. They became a necessity for companies operating in highly saturated markets and this necessity resulted from the need to be a competitive tenderer[32].

The turn of the 20th and 21st century and the first years of the 21st century are associated with the increased use of information, knowledge, and innovation in economic processes and the further progress of globalization, the intensification of the accompanying development of financial services and the appearance of the phenomenon known as glocalization, i.e. a phenomenon parallel to globalization, development of local economic and socio-economic initiatives[33]. M. Czupich believes that the concept of innovativeness most closely refers to the economy, stating at the same time that many authors directly describe it as an economic phenomenon. The quoted author examines economic innovativeness at individual, organizational, regional, national, or international levels[34].

Innovativeness clearly determines the competitiveness of the national economy. Innovations together with advanced technologies are currently the basis for the functioning and development of the largest global economies, as well as countries with strong competitive position and dynamically de-

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30 https://www.ecb.europa.eu/explainers/tell-me-more/html/growth.pl.html; accessed 15.01.2020.

31 **A. Olejniczuk-Merta**, *Konsumpcja w innowacyjnej gospodarce*, PWE, Warszawa 2016, pp. 11–12.

32 *Ibidem*, p. 14.

33 *Ibidem*.

34 **M. Czupich**, *Elementy teorii innowacyjności regionu*, in: **W. Kosiedowski** (ed.), *Przedsiębiorczość i innowacyjność w procesie rozwoju regionów Europy Środkowo-Wschodniej*, WUMK, Toruń 2013, pp. 67–68.

veloping enterprises. Innovative changes in products and product manufacturing processes lead to increased quality or reduced costs. Thus, they result in strengthening the financial condition of a company, and higher quality raises the entity's advantage over the competition. As for the competitiveness of the national economy, a greater number of competitive enterprises turn into an increase in the innovation potential of the entire country[35]. Innovative activity leads to the development of companies through the opportunities for their growth and expansion into new markets or increasing their share in the ones they have occupied to date. The outcome is the need to create new jobs, which determines economic growth[36].

An innovative economy contributing to economic growth is one in which:

- innovations constitute one of the most important factors in the development of the economy, they determine its competitiveness in both the continental and global economy,
- the management is predominantly knowledge-based,
- a kind of innovation hierarchy is shaped, i.e. the creation and application of any innovations is no longer important, except for radical innovations; likewise, system or business innovations are more important than just individual product innovations,
- the effects of innovation, on a large scale, do not cause negative effects in the sphere of consumption, they contribute to solving existing problems, e.g., reducing income and social inequalities, improving education, health care, or the satisfaction of social needs.

Innovativeness increases the competitiveness of enterprises and economies that create conditions for finding a better place in the global division of labour and achieving ever greater market benefits. This results in similar activities being undertaken by individual enterprises, i.e., creation, acquisition, and implementation of innovations, as well as making efforts to increase competitiveness. This type of competition turns into a raise in the position and competitive ability of the entire economy, the consequence of which is the improvement of the quality of products and services, increased and improved production flexibility and provision of services, reduction of labour costs per unit of production[37].

Innovations that reduce the costs associated with the production of a product (product and process innovations) or the company's fixed costs (organizational

[35] **J. Prystrom**, *Innowacje w procesie rozwoju gospodarczego. Istota i uwarunkowania. Podręcznik akademicki*, Difin, Warszawa 2012, p. 114.

[36] *Ibidem*.

[37] **J. Prystrom**, *Innowacje w procesie rozwoju gospodarczego*…, pp. 117–118.

innovations) can bring an increase in the current or future competitiveness of a company. In turn, the increased competitiveness of domestic business entities causes positive effects on domestic and foreign markets, thus raising export revenues and multiplying revenues for the state budget. If, as a result of innovation, there is a steady increase in sales, the demand for local raw materials and resources increases which is, in turn, associated with increased demand for employees[38].

Innovation and increase in efficiency bring significant benefits to consumers and entrepreneurs. Along with productivity, employee remuneration is raised as well. They earn more money, therefore are able to purchase more goods and services. At the same time, enterprises achieve higher profits, therefore can invest and employ more employees. Requirements related to the qualifications of the staff are also increasing, thus anyone wanting to find a job in an innovative enterprise must demonstrate appropriate education and qualifications.

According to the Bloomberg Innovation Index, South Korea has remained the most innovative country while Germany takes second place. Bloomberg indicates that German progress in research and development resulted in both countries receiving almost equal results (87.38 out of 100 and 87.30 out of 100 points, respectively). According to experts, Berlin owes its operating results to companies such as Volkswagen AG, Robert Bosch GmbH and Daimler AG. Finland finishes third[39], going up by four places. However, in the ranking of the richest countries in the world, the first places are taken by the USA, Switzerland and Singapore[40].

TABLE 1: *Comparison of innovative/richest/happiest countries in the world*

No.	The most innovative countries in the world (Bloomberg Innovation Index 2019)	The richest countries in the world (Global Wealth Report 2019 Allianz)	The happiest countries in the world in 2019 (Forbes)
1	2	3	4
1.	South Korea	**USA**	**Finland**
2.	Germany	**Switzerland**	**Denmark**
3.	**Finland**	**Singapore**	Norway

[38] **W. Świtalski**, *Innowacje i konkurencyjność*, WUW, Warszawa 2005, p. 168.

[39] https://tvn24bis.pl/ze-swiata,75/bloomberg-innovation-index-ranking-najbardziej-innowacyjnych-panstw,903020.html; accessed 15.01.2020.

[40] https://www.forbes.pl/wiadomosci/najbogatsze-kraje-swiata-wedlug-pkb-per-capita/eckgxp4; accessed 15.01.2020.

1	2	3	4
4.	**Switzerland**	Taiwan	Iceland
5.	Izrael	**The Netherlands**	**The Netherlands**
6.	Singapore	Japan	Switzerland
7.	Sweden	Sweden	Sweden
8.	**USA**	Belgium	**New Zealand**
9.	**Japan**	**New Zealand**	Canada
10.	France	**Denmark**	Austria
[...] 22	Poland	[…] 36 Poland	[…] 40 Poland

S o u r c e: own study based on Global Wealth Report 2019, Bloomberg Innovation Index 2019, Forbes.

When preparing the ranking of the happiest countries in the world, six aspects were taken into account, among others, GDP per capita (as in the ranking for the richest countries in the world), healthy life expectancy according to the World Health Organization (WHO) data, as well as, social support. The list above (Table 1) shows, in many cases, the dependence of repeatability of the same ranked countries that while being the most innovative are also rich and happy.

Analyzing the impact of innovation on the development of a given area, it is worth quoting the study of C. Marchetti (1980). His theory of long waves demonstrates that in history one can distinguish (at least) three long-term (several dozen years) innovation cycles. During these periods groundbreaking inventions were widely used. This process was accompanied by the implementation of many other common innovations that resulted from the former. It should be expected that without groundbreaking innovation they would not have taken place. However, due to their number, the use of minor inventions is also of great economic importance. Based on research, C. Marchetti recognizes that innovation constitutes an important factor in development of world civilization[41].

The issue of innovation and its importance in the future was subjected to a study conducted in 2011 by the consulting company Arthur D. Little. It was implemented among about one hundred technology and innovation directors from around the world. The study concerned new trends in innovation management over the next ten years and was published in a report entitled “The Future

[41] **K. Prandecki**, *Innowacyjność a rozwój – ujęcie teoretyczne*, Kwartalnik Naukowy Uczelni Vistula, 2013/2 (36), p. 14.

of Innovation Management: The Next 10 Years", authored by: Rick Eagar, Frederik van Oene, Charles Boulton, Daniel Roos, and Cindy Dekeyser. Based on the analysis of research results, it was forecast that the share of new products/services in revenues will increase from 30% in 2010 to 38% in 2020. The unit costs associated with the introduction of innovations are expected to decrease almost twofold over the next 10 years. Moreover, the most important area for innovative investments will continue to be ever deeper understanding of customer needs. The development of innovation and innovative solutions, primarily in rising markets, will contribute to a significant increase in investment over the next ten years. Therefore, European companies will increasingly transfer their pro-innovative operations from Europe and the USA to Asia and South America. Their share in the total operations will raise from 12% in 2010 to 25% in 2020[42].

The above considerations and cited research results prove that innovative solutions have become important factors and often also conditions for the competitiveness and survival of enterprises.

4. Summary

The purpose of the article was to show the role of innovation as a key factor for economic growth. The above deliberation shows that in the era of globalization and comprehensive development, to achieve economic success it is necessary to maintain a high level of innovativeness which is defined as the ability to permanently generate and implement innovation.

Economic development includes both quantitative changes (increase) in basic macroeconomic values (including production, employment, investments, the size of functioning capital, income and consumption), as well as qualitative changes in the socio-economic system or organization of society which consist of: technical and technological progress, improving the system of inter-economic and global economy links, increasing the qualifications of workforce, changes in the structure of the economy aimed at modernization, increasing the level of efficiency on a micro- and macroeconomic scale, and finally the appearance of new products and improvement of existing ones[43].

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[42] **R. Eagar**, **F. van Oene**, **Ch. Boulton**, **D. Roos**, **C. Dekeyser**, *The Future of Innovation Management: The Next 10 Years*, Prism 2011/1, pp. 21–35.

[43] **A. Majka**, **D. Jankowska**, *Innowacyjność a poziom rozwoju gospodarczego województw*, Wiadomości Statystyczne 2018/LXIII/10 (689), p. 22.

Countries basing their development on creating innovations or spreading existing ones achieve higher incomes, demonstrate competitive advantage, and their society lives on a higher civilization level. Consequently, the basic benefit that a business entity introducing an innovative solution obtains is precisely achieving an advantage over competitors and its nature depends on the type of implemented innovation.

Changing the production method (process innovation) usually means increasing productivity, which gives a company a cost advantage over competitors. This means an increase in profitability and the opportunity to participate in price war and increase market share. The introduction of a new product based on innovative solutions can bring a monopolist position to an economic entity. Particularbenefits may arise from the development of radical innovations and thus a completely new product. This allows, by a relatively low cost, to maintain high demand for the manufacturing of products at their unchanged price[44].

Over the past decades, there has been a certain evolution of views on the role of innovation as a determining factor in the economic performance of enterprises. Contemporary changes in the course of economic processes, resulting primarily from the globalization process and technological development, mean that innovativeness is not only a valued but also a desirable feature of an organization[45]. It is also noted that in addition to known economic development, innovation is also of social significance. J Baruk claims that this activity is primarily a social phenomenon, not just a technical process or a strictly economic mechanism, because members of society can express and fulfil their needs, as well as develop their creativity[46].

Innovation allows maintaining and improving the competitive position of regions in the European and world economy. It should find a permanent place in regional policy, not as a desired effect of the actions taken, but rather as a guiding principle, a certain overarching idea that determines actions in various areas.

The high level of life quality of the population, and thus the ability to meet various types of needs favours to drive the economy and contribute to its growth.

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[44] Za: **D. Firszt**, **Ł. Jabłoński**, *Kapitał ludzki i innowacje a zmniejszenie luki rozwojowej*…, p. 73.

[45] **J. Bogdanienko**, *Zarządzanie innowacjami*. *Wybrane problemy*, SGH, Warszawa 1998, p. 10.

[46] **J. Baruk**, *Innowacje a rozwój gospodarczy*, Problemy Jakości 2004/7, p. 24.

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INNOWACYJNOŚĆ JAKO SIŁA NAPĘDOWA I SZANSA DLA WZROSTU GOSPODARCZEGO

Abstrakt

Przedmiot badań: Przedmiotem badań artykułu jest szeroko rozumiana innowacyjność, która przyczynia się do wzrostu gospodarczego. Problematyka wzrostu gospodarczego stanowi jedno z ważniejszych zagadnień badawczych, podejmowanych w ramach nauk ekonomicznych. Współczesne zjawiska i trendy społeczno-gospodarcze pokazują, że innowacyjność jest elementem warunkującym wzrost gospodarczy krajów. Zmuszają one do skierowania uwagi na czynniki, takie jak wiedza, doświadczenie, kreatywność, i na to, co je spaja – na innowacje będące produktem twórczego wysiłku. Działania innowacyjne mają za zadanie sprzyjać dobrobytowi obywateli i społeczeństwa oraz zapewnić przemysłowi i przedsiębiorstwom konkurencyjną pozycję na rynku nie tylko krajowym, ale i międzynarodowym. Społeczeństwa dla osiągnięcia wysokiej jakości życia potrzebują innowacji – nowych produktów, usług, technologii, systemów organizacyjnych. Nowe produkty są często wzorowane na znanych przez określone zmiany, ulepszenia lub uproszczenia własnych lub obcych wytworów. Natomiast nowe pomysły mają na ogół swe źródło w wiedzy.

Cel badawczy: Celem artykułu jest próba odpowiedzi na pytanie badawcze, dlaczego innowacje stanowią kluczowy czynnik wpływający na rozwój i wzrost gospodarczy. W pierwszej części dokonano przeglądu definicji na temat innowacji i innowacyjności. Punkt wyjścia stanowi pionierska definicja J. Schumpetera, dotycząca innowacji w gospodarce, przez ujęcia m.in. Ph. Kotlera, M.E. Portera czy R.W. Griffina oraz wybranych polskich naukowców. W kolejnych podrozdziałach przedstawiono rodzaje innowacji oraz rolę procesów innowacyjnych we współczesnej gospodarce, jak również zaprezentowano wyniki badań przekonujących o doniosłej roli innowacyjności na gospodarkę.

Metoda badawcza: Jako metodę badawczą wykorzystano analizę literatury przedmiotu. W artykule przedstawiono podstawowe, teoretyczne zagadnienia związane z innowacjami i innowacyjnością.
Wyniki: Z artykułu wynikają następujące wnioski: gospodarka kraju osiąga tym wyższy wzrost gospodarczy, im lepiej wykorzystuje znajdujące się w jej dyspozycji zasoby, takie jak: warunki naturalne, finansowe zasoby, kapitał materialny wytworzony przez ludzi oraz takie, którym przypisuje się coraz większe znaczenie: zasoby wiedzy: patenty, zaplecze naukowe, eksperckie, kapitał ludzki; umiejętności, potencjał twórczy oraz kapitał kulturowy: postawy i wartości związane z innowacjami. Przedsiębiorstwa poprzez innowacje polepszają i unowocześniają procesy wytwórcze, podnoszą produktywność, wydajność, a także jakość pracy, co przekłada się na wyższe wynagrodzenia pracownicze. Przedsiębiorstwo innowacyjne, podnosząc jakość swoich wyrobów, zwiększając ogólną sprawność i efektywność swojego działania poprzez usprawnianie organizacji i metod pracy staje się bardziej konkurencyjne na rynku.

Słowa kluczowe: innowacje, innowacyjność, proces innowacyjny, wzrost gospodarczy, rozwój gospodarczy.