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Innovations. Market and Social Aspects

Abstract: Areas of research in economics and management science become increasingly close – they overlap and become very similar. New events, new products of people’s actions, new patterns of behaviour arise with a pace unknown before. Institutionalisation of these phenomena aimed at their broad codification also takes on new forms. We live in an age of ubiquitous innovativeness. Naturally, the question arises: should innovations be perceived in the same way as in the past? Are there any new types of innovations that have appeared lately? Are the current definitions of market and social innovations still up to date?

The aim of the article is to present a change in approach to innovations over time, with particular focus on their market and social aspects. The author attempts to answer the following questions: how did technological progress visible in the networking of economy influence the understanding of social innovations, what is the role of social production and exchange which replace gradually market exchange, in the social innovation definition, to what extent is the cooperation within a community in the virtual space characteristic of a special class of social innovation?

The research method used by the author is based on literature studies on innovations and on the economics of cooperation (access, sharing, co-use). It comprises an analysis of different concepts of innovation, in particular different definitions of the name, an analysis of different approaches to cooperation economics, comparisons of the obtained results, and conclusions formulation.

The approach to innovation changes over time – from a technical, social and market approach to a differently understood today social approach. Contemporary, the criteria for innovation “society” are different. The understanding of innovation is influenced by the increased role of social production and exchange at the expense of market exchange. The networking of the information economy significantly strengthens the social aspect of innovation. Cooperation within a community, including co-creation of goods, access to them, their co-use and sharing, is an extreme example of the advantage of the social dimension of innovation over its market aspect.

Keywords: social innovations, market innovations, technical innovations

JEL: O3, M1

1. Introduction

There are many events that we are eager to call innovations. Below are some examples:

1. Nowadays in Poland an electric car is considered to be an innovation, still not very popular among Poles due to its high price and insufficient infrastructure regarding battery charging – while in the EU countries in the first half of 2016 more than 44,000 of such new cars were registered, in Poland there were only 33 of them (*Pojazd elektryczny*, 2017).
2. In May 2016, at the MOTO SHOW in Cracow, a prototype hydrogen car (to be more precise: an electric car powered with hydrogen) was called an innovation and presented for the first time in front of a wider audience – HYDROCAR PREMIER, expressing the latest Polish technical thought materialised in an innovative power system and unique design (*Pierwszy polski samochód wodorowy...*, 2016).
3. Today, in our geographical latitude, no one calls an oil lamp an innovation, however, it was considered as such in 1853 – constructed by Ignacy Łukasiewicz and ignited for the first time in Lviv in March of the same year, and on 31 July used for the first time during the night operation in the city hospital (*Lampa naftowa*, 2017).
4. Organising the World Road Championships for the first time in 1921 (in Copenhagen, the capital of Denmark) was an innovation, as well as organising and also introducing an individual time trial in 1994 to the programme of the Championships (*Mistrzostwa świata...*, 2017).
5. The sequence of innovations connected with the creation of human thought such as the circle, having the confirmation in archaeological discoveries, begins with the invention of the pottery wheel by the Sumerians about 3250 years BC. The use of wheels in the very first wheeled vehicles – chariots – is also confirmed almost a thousand years later; and in more recent times, e.g. in 1869, a patent for wheels with wire spokes, which gave rise to two-wheeled bicycles with a large front wheel and a small rear one, in other words – bicycles and their contemporary successors (Ługowik, 2017).
6. Among the latest examples of innovations, the Ice Arena in Tomaszów Mazowiecki can be pointed out, officially opened on 14 December 2017 – the largest and most modern in Poland and Europe, and meanwhile, the first indoor speed skating track in Poland, which in addition to bobsleigh operates all ice disciplines (*Prezydent Duda otworzył Arenę Lodową...*, 2017).

The examples of the events indicated above are called colloquially innovations. Innovation in the common understanding has been for the last fifty years identified with either the broadly understood novelty or in a narrower sense with a change that means either the process of introducing something new or the effect of this

process, which is something recently introduced. And likewise, the term innovation is interpreted in this way in Polish language dictionaries, for example, from 1968, 1988, 2003, and also from 2017 (Skorupka, Auderska, Łępicka, 1968: 236; Szymczak, 1988: 792; Sobol, 2003: 274; *Słownik języka polskiego PWN*, 2017).

Should broadly understood innovation be identified with novelty also on scientific grounds? How broadly should we define innovation in order not to identify it with novelty? What are the typical approaches to innovation in the literature? How should we understand technical, market and social innovations in the light of broadly understood innovation, and whether they mean the same today as in the past? I will try to answer these questions in the article.

2. Research method

The interest in the term “innovation” in the literature has been steadily growing for at least 40 years, which may be reflected in the number of publications on this subject included in the business database of EBSCO publications. Four decades ago, that number increased by 2,900 positions, and in the last decade 2008–2018 by as many as 88,449; in the case of scientific literature, the figures were respectively: 1,563 and 30,266. The analysis of the number of publications on innovation obtained from this database is an important method used in my research, complementary to the qualitative analysis of the content of publications – literature studies, some of which I also conduct on the basis of this database. The next steps in my research programme on innovation and its types are as follows:

1. Identification of different meanings of “innovation” on the basis of literature (in the first stage of the research, regardless of the year of publication), comparison of these meanings, grouping them and identification of (five) typical approaches to innovation on this basis. Identification of the characteristics of relevant innovations in each approach.
2. Operationalisation of the meaning of each of the approaches – its expression using a typical set of data approaches (in particular one-piece).
3. Searching in the EBSCO database, in the general set of publications, for those subsets of publications that correspond to each of the identified types of innovation on the basis of the existence or co-existence of terms-characteristics attributed to the type of innovation, taking into account the four decades identified between 1979 and 2018.
4. Conclusion on the existence/non-existence of sets of publications corresponding to the types of innovation identified, as well as on the number of sets of publications corresponding to the identified types of innovation.
5. Providing literature examples of innovation definitions or interpretations of that meaning that correspond to each approach, taking into account the

literature described in point 1, supplemented by the ESCO database and its publications from 1979–2018 and not yet completed 2019. I would like to draw your attention to the articles in two journals on management and organisational theory which belong to the five most frequently quoted scientific journals in this discipline, i.e. “Academy of Management Journal” and “Academy of Management Review”.

6. Identification of the meaning of the terms such as “market innovation” and its different types, as well as “social innovation”. Operationalisation of these terms, separation in the ESCO database of subsets of publications devoted to the examined issues and indication of their number (similarly as in points 1–4).
7. Interpretation of the understanding of the name of social innovation in its former and contemporary meaning, taking into account the principles of a new management philosophy, i.e. the collaborative economy.

3. Innovations in general – aspects not limited to novelty

The identification of innovations with the generally understood novelty is rooted not only in colloquial language but sometimes also in the scientific work of representatives of various disciplines. I do not think that expanding the naming scope of innovation for every novelty is inappropriate. Novelty is a change. It indicates something that has not been used before – something completely, absolutely new, as it did not exist before (everything in it is new and has only new features); something new, because in this place and time it has never been used before; something new only in some respect, because something has been changed, thus it is entitled to a new feature which previously was not there. This something can be, e.g. a new product, new service, new method of operation, new event, or new natural phenomenon. However, the lastly mentioned examples could be hardly called innovations. We will not call an innovation, e.g. the phenomenon of global warming, even when it is a recognised phenomenon that has been happening for some time (I disregard assessing the validity of existing parallel and, at the same time, contradictory views on climate warming/cooling). We will also not call an innovation the observed phenomenon of increasing strength of tropical cyclones (hurricanes and typhoons)¹ and their destructive activities around the globe.

1 Tropical cyclones are extensive low-pressure systems with winds with an average speed above 120 km/h, forming over the waters of the tropical and equatorial zones, called hurricanes in the Atlantic and Eastern Pacific, and typhoons – in the Western Pacific (Popkiewicz, Malinowski, 2017).

The term “innovation” does not refer to all events that adhere to the novelty feature (with regards to the degree of its intensity and its relativisation to time and place), but only to those of them that directly or indirectly affect people’s actions. For this reason, I consider the interpretation of innovation in the field of praxeology as a science of efficient operation to be particularly valuable, indicating that the action in this science refers only to a specific type of human behaviour. I recognise the praxeological interpretation of innovation to be the basis for any reflection on innovation.

In praxeology, the action of a human being (the subject of action, the causer) is a special kind of behaviour – it is a behaviour which is: 1) purposeful (aims at achieving the set goal), 2) conscious, 3) preceded by the subject’s decision of behaving in a certain way, and 4) wanted by the subject (Pszczółowski, 1978: 56–59). The action is intended, approved by the causer, it is something which is under the causer’s control or in the causer’s power. The action is not only related to the movement of muscles, as Pszczółowski says, although this type of action, especially connected with people’s physical activity, is easily observable. Thinking is also an activity, in other words: a reflection as an internal action.

Due to the fact that the term “innovation” in general refers not only to actions but also to their effects, the term of product in praxeological meaning is useful for describing innovation (Pszczółowski, 1978: 280–281). In this case, the “product” means something that is the result (effect, conclusion) of an action, that is, an object in its broad sense (all that one can talk about and think of), both material and non-material (among others: features, relationships, events – changing or not changing something, including actions and their results). The effect of an action, as explicitly stated by von Wright (1963: 39), is a change related to this action, i.e. a kinetic event, or alternatively – the final state of this change, i.e. a static event. The product is always an effect of someone’s action or actions of some people at a specific time, i.e. it always refers to a specific person and time (Pszczółowski, 1978: 280). In addition, taking into account some of the criteria for product differentiation, one can indicate in their general collection, among others: individual and collective, partial and final products, as well as products of internal (mental) and external activities. A material product is one of a particular kind, different from the causer of action, in contrast to, e.g. an artist’s work, which is a product of a genius, existing in the initial stage generally in an immaterial form and connected with the causer – situated in his or her mind.

Taking into consideration that the praxeological interpretation of the terms “action” and “product” when explaining the meaning of innovation, it should be noted that under the general praxeological statement that “innovations are concerned with actions (people) and their products”, there are many various events related to this. Such a statement means that innovations have reference to, among others: ideas, activities, processes, methods, procedures, tools, production factors,

resources, products, goods, services, etc. Due to such a large, and in principle an infinite number of events that may be the subject of innovation, I believe that it is not reasonable to attempt to list some of these events or enumerate their types when defining innovations in their general sense. Indicating in this matter a given case of events is justified only when defining a specific type of innovation, including the aforementioned market or social innovations. In addition, the fact that innovations are related to activities and their products, and are a kind of product of novelty, activities as well as products, also results from the fact that they should be considered in relation to the person (people), place and time (operations and products are characterised on the grounds of a person/persons and time, nevertheless, the new things – on account of place and time).

In addition to the already mentioned feature of innovation, which distinguishes it from novelty, namely referring novelty to actions and their products, it is necessary to indicate the second feature of innovation which I call utility or usefulness. In the praxeological sense, the term “useful” means “being used to enable or facilitate the attainment of a given goal”. A useful object is a necessary object (Pszczółowski, 1978: 266). I understand the feature of innovation (its usefulness) as a distinctive combination of two other features, i.e. the assessment of the positive aspect of innovation, in other words, being valuable or priceless, its “practicality” and “applicability”. Both these features in this case co-exist and depend on each other. If something is valuable, it is usually applicable, and because it finds its application, it becomes even more valuable. In the interpretation of the utility of a broadly understood subject, the emphasis is often placed on its positive assessment, sometimes on practicality, its implementation, and application. Taking into account both important features of innovations discussed here, innovation in the general sense should be understood as new and useful (i.e. valuable and applicable) human activities and their effects.

In my opinion, theses included in my current argumentation are the basis for distinguishing five typical approaches to broadly understood innovation. They are presented below in the following way: in each case the approach is briefly characterised, the resulting symbol of the set of designations of the term innovation is provided (otherwise: the symbol of the scope of this term) and exemplary definitions of innovation, typical for a given approach, are identified.

Approach 1

I consider as the most general approach to innovation the one in which innovation is identified with novelty (N), which is perceived as the only important feature of innovation.

The symbol of the collection of innovation designations: N. One of the meanings of innovation in the previously mentioned four Polish language dictionaries is simply the term “novelty” (Skorupka, Auderska, Łępicka, 1968: 236; Szymczak, 1988: 792; Sobol, 2003: 274; *Słownik języka polskiego PWN*, 2017).

Approach 2

The scope of the term innovation identified with novelty (N) is narrower, provided that it concerns the actions of people and their products (D).

The symbol of the collection of innovation designations: ND.

Examples of defining or interpreting the importance of innovation by selected authors:

1. Kotler: "Innovation refers to any good, service or idea that is perceived by someone as new". The author draws attention to the subjective aspect of innovation, adding that: "An idea may have existed for a long time, but it is an innovation for the person who perceives it as a new one" (Kotler, 1994: 322).
2. Rogers and Shoemaker: "An Innovation is defined an idea perceived as new by an individual or system" (Rogers, Shoemaker, 1971).
3. Rogers: "Innovation is an idea, practice or object that is perceived as new by an individual or a group, a group that receives it". The author adds that: "if the idea seems new to the individual, it is an innovation" (Rogers, 2003: 12).

Approach 3

Another feature of innovation, in addition to the previously indicated, that is novelty (N) regarding actions and their products (D) is the practical feature of their application (Z).

The symbol of the collection of innovation designations: NDZ.

Examples of defining or interpreting the importance of innovation by selected authors:

1. Pszczołowski: Innovation is "a new product (a novelty relative to the place and time) which through the imitation is disseminated in practice" (Pszczołowski, 1978: 83).
2. Koch: "Innovation – commercialisation of an invention: introduction of a new product or service to the market" (Koch, 1997: 89).
3. *Oslo Manual*: "Innovation is the implementation of a new or significantly improved product (or service) or process, a new marketing method or a new organisational method into the business practice, in the field of workplace organisation or relations with the environment" (*Oslo manual...*, 2005: 46).
4. Compagni, Mele and Ravasi: The book *How Early Implementations Influence Later Adoptions of Innovation* (Compagni, Mele, Ravasi, 2015) shows the implementation and application of innovation.
5. Birkinshaw, Hamel and Mol: "We define management innovation as the invention and implementation of a management practice, process, structure, or technique that is new to the state of the art and is intended to further organizational goals" (Birkinshaw, Hamel, Mol, 2008: 825).

In this approach to innovation, the authors differ significantly in their views on the subject of: which stage of "making a novelty more practical" should

be considered typical for innovation. Some of the authors, such as Baruk (2009: 13; 2013: 10–11), believe that this stage is the first contact with the recipient of innovations, such as: the first introduction of a new or improved product into manufacturing and the market, the first application in the production of new or improved methods of production, and analogically, the first specific events in the case of work and production organisation, management methods or marketing. A different view is presented, for example, by the already mentioned Pszczołowski (1978: 83), for whom not only the first stage of making the novelty more practical is an innovation but also its promulgating in practice through imitation. This stage, also called diffusion, is recognised by the author as contributing to innovation. In addition to these two extreme views, there are also many others that enrich discussions around the course of the process of innovation.

Approach 4

The features of significant innovativeness, apart from the ones indicated in the second approach, e.g. the novelty (N) concerning actions and their products (D), also include the feature of value (C) – a certain assessment of events resulting from the application of novelty in practice, however, without any special emphasis on the implementing actions, “making these novelties more practical”.

The symbol of the collection of innovation designations: NDC.

Examples of defining or interpreting the importance of innovation by selected authors:

1. Robbins and DeCenzo after Stevens (1999): “Innovation is the process of transforming a creative idea into a useful product, service or modus operandi” (Robbins, DeCenzo, 2002: 345).
2. Pietrasiński: “Innovations are changes deliberately introduced by man or cybernetic systems designed by a human which consist of replacing previous states with others, evaluated positively in the light of specific criteria and making up a whole for progress” (Pietrasiński, 1971: 9).
3. Drucker: “Innovation is an [...] action that gives resources new opportunities to create wealth” (Drucker, 1992: 39).
4. Jia, Huang and Zhang: “Innovative activities create considerable value for the company” (Jia, Huang, Zhang, 2019: 220).
5. Utterback: “[...] the effectiveness of innovation as a dependent variable” (Utterback, 1971: 76).

Approach 5:

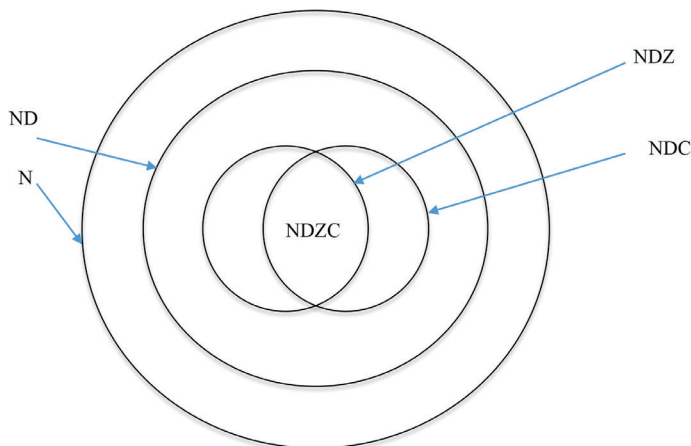
Important features of innovations are: novelty (N) of activities or their products (D), their application in practice (Z), as well as positive evaluation of subsequent events and their value (C). Referring to the sum calculus, this is a common part of the NDZ and NDC sets indicated respectively in Approaches 3 and 4.

The symbol of the collection of innovation designations: NDZC.

Examples of defining or interpreting the importance of innovation by selected authors:

1. West and Farr define innovation as “intentional introduction as part of work and application of work team or organization of ideas, processes, products or procedures that are new to this work, work team or organization and which aim to bring benefits to this work, team work or organization” (West, Farr, 1990: 9).
2. Damanpour: “The adoption of innovations is conceived to encompass the generation, development and implementation of new ideas or behaviors [...] The adoption of innovation is generally intended to contribute to the performance or effectiveness of the adopting organization” (Damanpour, 1991: 556).
3. Schippers, West and Dawson: “Innovation subsumes creativity – the generation of new ideas – but, in addition, includes the implementation of the ideas [...] and is seen as an important factor in organizational effectiveness and survival [...]”. In reference to the latter, the authors emphasise that: “innovations should also be judged on the basis of whether they prove effective in practice” (Schippers, West, Dawson, 2012: 5).
4. Deschamps does not mention innovation but innovative character. On the basis of innovation defined by him, one can conclude the meaning to be as follows: “[...] innovation means striving to change the existing state of affairs, the change that one hopes will introduce a better product, service, process or management”. The author believes that “innovation is to a large extent adding value” and that “innovation is a combination of invention and implementation”, for which the process consists of such stages as: immersion (submerging in market problems or the current problem), imagination (depicting potential benefits), ideation (concept creation) and initiation (project launch), as well as incubation (testing), industrialisation (production and delivery in large quantities), introduction (trial start and launch of sales), as well as installation and integration (both stages implemented at the client’s site) (Deschamps, 2011: 24–25, 32–33).

The presentation of these approaches is finalised with Figure 1, where I graphically present the relationships between the terms of innovations with its five different meanings.



Essential features of innovation: N – novelty; D – relationship with actions and their creations; Z – practical application; C – value, value assignment.

Figure 1. Spheres of the term “innovation” in various approaches to innovation

Source: own elaboration

Among the identified approaches to the generally understood term of innovation, I mostly appreciate the usefulness of the last one, which is symbolically named the NDZC approach. I consider all of them to be multidimensional approaches, the most complete of the ones being analysed (as they refer to the actions of people and their products, and at the same time take into account three other important features of innovation: its novelty, practical application and positive assessment of events-effects). The understanding of innovation, typical for this approach, is consistent with the generally accepted concept of the innovation process and the stages identified within, such as: a creative idea (concept), a creative activity finalised with a new product, implementing the product for the first time, its imitation (reproduction), and dissemination (diffusion, absorption). Moreover, this approach is not only useful in the interpretation of innovation in its general sense but also in the process of extracting and displaying various special kinds of innovation. Criteria for organising innovations can be derived from distinguishing and qualifying criteria of such events as: novelties, actions, products of actions, their applications, and evaluations.

To each of the distinguished approaches, and thus types of innovations, one can assign their different subsets in the EBSCO publication database, depending on the adopted search criteria for a given subset – terms describing it. The number of elements of each of these subsets is shown in Table 1.

Table 1. Frequency of occurrence of publications on distinguished types of innovations in the EBSCO database in the years 1979–2018, in decades

Type of innovation		Decades				In total 1979–2018
Symbol	Features and methods of their expressions	1979–1988	1989–1998	1999–2008	2009–2018	
NDZ	‘innovation’ and ‘implementation’	1	7	15	15	38
	‘innovation’ and ‘commercialisation’	3	14	127	465	609
	‘innovation’ and ‘spread’	–	–	–	5	5
	‘innovation’ and ‘application’	10	380	551	635	1,576
NDZ in total		14	401	689	1,120	2,224
NDC	‘innovation’ and ‘value’	11	37	202	852	1,102
NDZC	‘innovation’ and ‘value’ and ‘implementation’	–	–	7	36	43
	‘innovation’ and ‘value’ and ‘commercialisation’	–	–	1	19	20
	‘innovation’ and ‘value’ and ‘spread’	–	–	2	3	5
	‘innovation’ and ‘value’ and ‘application’	2	1	21	47	71
NDZC in total		2	1	31	105	139
N = ND	‘innovation’ in a general sense	2,900	30,247	47,451	88,449	11,467

Essential features of innovation: N – novelty; D – relationship with actions and their creations; Z – practical application; C – value, value assignment; in the examined database, the novelty feature concerns in every case actions of people and their products, hence the conventional notation: N = D.

Source: own elaboration

The data contained in Table 1 show that apart from exceptionally numerous sets of publications concerning innovation in its broadest sense, innovation is relatively often interpreted as a novelty applied in practice (NDZ symbol) – 2,224 publications, less frequently as a novelty from the point of view of its value, value for the entity using it (NDC symbol) – 1,102 publications, and the least frequently as a novelty both valuable and applied in practice (NDZC symbol) – 139 publications.

4. Technical, market and social innovations – distinction criteria – similarities and differences

Technical innovations are mainly concerned with the product of action – its result and effect. Occasionally, this product occurs in the company of the preceding process, other times, it is accompanied by the following process. There are three typical ways of defining technical innovation indicated in which innovation is subsequently interpreted as:

1. A product (or service) significant in technical terms, relativised to the place and time (e.g. the oil lamp invented by Ignacy Łukasiewicz in 1853 in Lviv, or lighting with the oil lamp the Lviv hospital for the first time in 1853).
2. A creative process that reflects the transformation of ideas into a new product, technically significant (e.g. the invention of an oil lamp in 1853).
3. A process that occurs after the appearance of a new product which is technically important i.e. the process of its usage by an external user or the creator himself, inside the company (once again, as an example, the first lighting of the oil lamp in the Lviv hospital in 1853 can be mentioned, or another example: the use of the assembly line by Henry Ford in 1913 at a car plant in Highland Park, Michigan).

Most frequently, when defining technical innovation, the third of the following approaches is used, depicted by the second example which refers to the company. This meaning is assigned to the term of technical innovation in *Leksykon naukowo-techniczny* (Czerni et al., 1984: 307), where it is interpreted as “introducing new technical inventions or improvements to the production practice which allow an increase in the quantity and quality of manufactured goods, as well as an increase in work efficiency and the level of investment”. It means that in this case not only the product itself is placed in the production practice of the company but also the process of its usage and the resulting effects positively evaluated by the company.

The term that is similar to technical innovation is the term of technological innovation. This time, however, it is not so much about the product itself, but about a new way, in particular a new method of operation, a method of reaching the goal, often including this product. According to Heiskala (2007: 59), Bukowski and Rudnicki (2014: 79), speaks of technological innovations as new and more effective ways of transforming material reality. The author adds that by using them and taking into consideration their effects, we enter the sphere of economic innovation.

Technological innovations are either in the company (they apply, for example, to the structure of a new technological process), or at the interface of the enterprise and society (e.g.: customer service), or in a specific community (e.g.: students using the Internet at school). Similarly, in the case of technical innovations,

the majority of examples presenting technological innovations so far have been mainly concerned with the sphere of production i.e. the interior of the company.

Market innovations, as the term implies, are related to the market, i.e. referring to the view of Wrzosek (1998) regarding the market, they are associated with all relations that take place in the process of exchange between sellers, as entities representing supply, and purchasers, representing demand.

In some cases, when defining these innovations, a special role is attributed to supply, in other cases, to demand. The first case is about push innovations, i.e. innovations “pushed” by supply, science, technology, processes (through technical and technological innovations, as previously mentioned). It is about “marketisation” of new products, and shifting them from the company to the market. The company shapes the product and when it is ready – launches it into the market. In defining push innovations, the emphasis is not put on creating innovation, but on the second phase of the innovation process, which starts with the introduction of innovation to the market.

The definitions in which innovations are simply called “commercialisation of an invention”, “commercialisation of a new idea”, or “launching a new or improved product” are considered typical for the supply-side approach to innovation. Koch (1997: 89), when defining innovation (in a market approach), calls it the commercialisation of invention, and explains this phrase as the introduction of a new product or service to the market.

The second type of market innovation is called pull innovation, defined as drawn by the market, or by demand. This time, demand turns out to be particularly important in interpreting innovation. Knowing market needs, the company tries to adapt its products – it responds to demand with innovation, and thus demand modifies it. As so understood, demand is an occurrence that begins and ends the process of innovation. This means that clients’ contribution in the creation of innovations is in this case much larger than in the case of supply innovations. According to Drucker (1992: 42), nowadays innovation needs to be defined “in terms of demand rather than supply, i.e. as a change in the value and satisfaction of the consumer’s needs through the use of specific resources”.

In the next approach to innovation, this time defined as supply-demand, the relationship between demand and supply is much stronger than in the so far discussed approaches. The impact of both sides, supply on demand and demand on supply, is realised through innovation. It occurs not only in various areas of the company’s operation but also at many stages of the innovation process. Among the theoretical concepts describing this issue, special attention should be paid to the developed concept of the *New Era of Innovation* by Prahalad and Krishnan (2010: 12–13), presented by the authors graphically in the form of an edifice of innovation symbolising the Greek temple. Two columns play an important role. One of them presents demand and supply, defined collectively as “co-creating the experience

of personalized customers”, which means that the company shapes consumer expectations and responds to customers’ changing signals. The clients along with the company co-create value, including every single customer (hence the entry $N = 1$). And this, according to the authors, is the essence of innovation that is achieved thanks to the availability of global human resources (including talents), technology and finance ($R = G$), i.e. not so much due to owning these resources but by accessing them. The availability of resources is presented as the second column. Business processes that fill the interior of the edifice allow innovations to be achieved, i.e. the realisation of the transition from the idea to action. They are supported, using the authors’ words, with technical and social architecture, located at the base of the building and its top parts.

Social innovations, as the term itself implies, are related to specific communities, larger and smaller ones. More frequently discussed in the literature are social innovations concerning large communities presented at the mega- or macro-scale, that is, society in the broadest meaning of that word (referred to as humanity, global community, world community, or society distinguished by continental or national borders), than social innovations at the microscale (which are usually related to an enterprise).

The main reasons for introducing innovations are economic in nature, although other motives – non-economic ones – can be also pointed out. Among other authors, Kieżun (2011: 163) mentions them when discussing the scientific achievements of Kwiatkowski, with particular emphasis on the idea of innovative society, which is built mainly on the basis of Schumpeter. Innovations can take place in the technical, organisational and social spheres. These kinds of changes lie at the root of innovation (Kieżun, 2011: 164), and although they are mostly related to the production process, they do not have the greatest social and economic resonance, as pointed out by Kwiatkowski and seen in the achievements of Drucker. The innovative changes that he considers to greatly influence social effects are broadly understood spheres of services such as: education, healthcare, politics, and the arts. To the list of mentioned services, Kieżun adds public administration (Kieżun, 2011: 166). This means that these changes can be qualified as innovations in the sphere of so-called consumer and social services. Niedzielski considers consumer services to be the most sensitive in the process of being subject to innovative processes, although, as he points out, every non-material value created in the service process should be socially useful². This statement should be extended to all social innovations which by definition are pro-social – have positive effects and a common weal in mind. One cannot call social innovations, as it is explicitly stated by Bukowski and Rudnicki (2014: 81), those innovations that “have negative effects or serve only business purposes”.

2 This view is expressed by Niedzielski, who is the author of a slogan “service innovations” in: Bąkowski, Głodek, Gołębiowski et al., 2005: 67–70.

Innovations are defined as social mainly due to the assessment of the effects of human actions (therefore, they can be called social innovations *ex post*) or in the case of intended activities – on the grounds of the objective of the action (social innovation *ex ante*). If these effects are qualified as social, in other words, these are changes taking place in relations or in social structures, then regardless of whether they are deliberate or unintentional adjustments (side effects of intended actions), they are called social innovations. Such a general definition of social innovations is used by the majority of authors concerned with this issue. Despite being rare, there are definitions that are more detailed. Heiskala (2007: 59, for Bukowski and Rudnicki, 2014: 80) distinguishes three types of changes in social structures: changes in regulatory, normative and cultural structures, which are expressed in new behaviours, new values, and a new interpretation of events. These three types of changes, according to Heiskala, incorporate the scope of the naming convention of social innovations.

Social effects, which constitute the essence of social innovations, may be the result of innovative changes that occur, as it is most commonly defined, in the area of technology. It also happens, although less frequently, that social effects are a consequence of organisational changes, as well as the ones taking place in the area of interpersonal relations. The changes indicated in the last of the mentioned cases can be called “pure social innovations”, due to the fact that both the cause and the effect are social changes (in other words: socio-social innovations). In other cases, it is about social innovations only regarding the effect/purpose (e.g.: technical and social innovations, organisational and social innovations). This means that in the case of social innovations, the cause and effect relationship between changes of various types, forming a kind of continuum at the end of which social innovations are usually found, is visible even more than in the case of technical or market innovations.

The publications published in the EBSCO database and concerning the indicated types of innovations, i.e. social and market innovations, including supply and demand market innovations, are presented in numerical form in Table 2.

The data contained in Table 2 show that in the analysed EBSCO database there are almost 10 times more publications on social innovation than market innovations, which is expressed by the numbers 3,270 and 343 respectively. In addition, in a smaller set of publications on market innovations, the supply side is dominant (expressed by ‘supply innovation’ and ‘push innovation’) – 45 literary items, compared to 29 publications devoted to demand innovation (expressed by ‘demand innovation’ and ‘pull innovation’).

Table 2. Frequency of publications on market and social innovations in the EBSCO database in the years 1979–2018, in decades

Type and expression of innovation	Decades				In total 1979–2018
	1979–1988	1989–1998	1999–2008	2009–2018	
'market innovation' in a general sense	5	29	88	157	269
'push innovation'	–	2	12	21	35
'supply innovation'	–	–	4	6	10
'pull innovation'	–	–	–	1	1
'demand innovation'	1	1	15	11	28
market innovation in total	6	22	119	196	343
'social innovation'	8	10	736	2516	3270

Source: own elaboration

5. Social and market innovations – the past and present

Social innovations have recently been perceived differently than at least for many decades before. The social effect of social innovations is still their essential feature, but there appeared one more characteristic, also as important, namely the form in which these innovative changes are realised. This new form is known as cooperation community, also called network community or social community. It is a special form of cooperation, as Benkler defines it (2008: 76), it is a form of right to access, use and control shared resources. It is, as Ryfkin (2016: 172–174) writes, a new type of social community, a “dispersed community” of autonomous, equal and dispersed individuals, created as a result of the use of modern information technologies, as well as the emergence of the Internet and a network society (Ornarowicz, 2000).

Social innovations are not only the ones described above which have social consequences but also the innovations realised in the form of social cooperation, namely a network community. This means that the scope of social innovation has grown significantly due to the increased role of social innovations implemented in the social form, and thus also social innovations which turn out to be social because of their results and form (in the set calculus nomenclature: their common part). Figure 2 symbolically presents the scope of the term of social innovations as the sum of two sets, i.e. the set of social innovations distinguished due to their result and due to their form, considering relativisation in time.

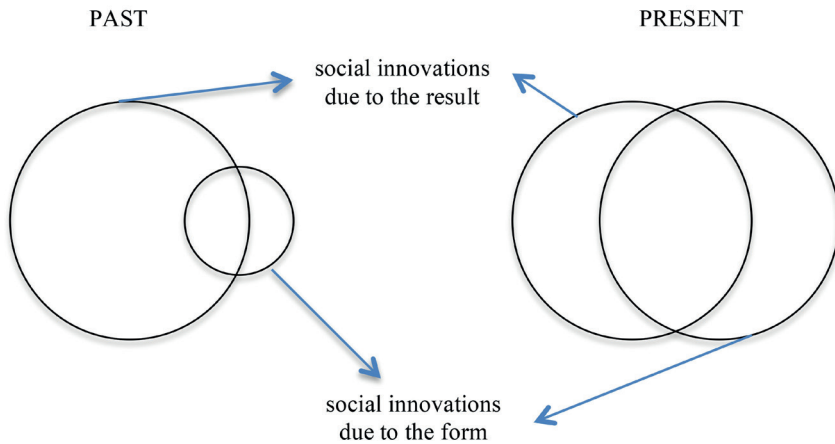


Figure 2. Scope of the term “social innovations” the past and present Distinguishing criteria

Source: own elaboration

Differences in understanding of technical, organisational, and especially market innovations in the past and today can be reduced to a different location, in relation to the enterprise, of such innovation process elements as: reasons for innovation, resources used in the activities, and products of these activities.

Technical and organisational innovations, hitherto usually qualified as “internal” (ideas, resources and products) in the relation to the analysed enterprise, today become more open due to the fact that they are implemented in networks to which this enterprise belongs.

Market innovations of supply type, partially open by definition (internal: ideas, resources, internal-external: products “pushed out of the enterprise”, “pushed by technology”), today become even more open: ideas and resources are supported from the outside “by knowledge of social networks” or “social wisdom”.

Market innovations of demand type, more open than supply ones (external: needs, expectations, internal: ideas, internal-external: products “pulled by the market”, “pulled by demand”, internal: resources), today are open even more: internal ideas co-exist with external ones, they are supported from the outside by “knowledge of social networks” and “social wisdom”, the implementation of activities takes place inside and outside, as internal and external resources are used.

6. Conclusions

To sum up, the following general conclusions should be formulated:

1. Today, compared to the relatively recent past, greater openness of market innovations takes place, as well as technical and organisational innovations, traditionally considered as closed.
2. Today, much greater socialisation of social innovations is visible, innovations classified as social ones due to the result and due to the form. It is often a “double socialisation” – both because of the result and the form.
3. Differences between market and social innovations, as well as between market, social and technical innovations, are becoming increasingly blurred. This is facilitated by the occurrence of such processes as co-creation, co-dissemination and sharing which make up the new philosophy of management known as the collaborative economy.

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Innowacje. Aspekt rynkowy i społeczny

Streszczenie: Obszary badań w ekonomii i naukach o zarządzaniu stają się sobie coraz bliższe, coraz mniej rozłączne – przenikają się i upodabniają. W niespotykanym dotąd tempie pojawiają się nowe zdarzenia, nowe wytwory działań ludzi, nowe wzory zachowań, których instytucjonalizacja, szeroko rozumiana jako ich utrwalanie, też przybiera nowe formy. Żyjemy w epoce wszechobecnej innowacyjności. W naturalny sposób rodzą się pytania: Czy innowacje należy dziś rozumieć tak samo jak dawniej?, Czy w ostatnim czasie pojawiły się klasy innowacji o cechach wcześniej niespotykanych?, Czy dotychczasowe definicje innowacji rynkowych i społecznych zachowują swą aktualność?


Celem artykułu jest przedstawienie zmiany podejścia do innowacji w czasie, ze szczególnym uwzględnieniem ich aspektu rynkowego i społecznego. Autorka próbuje odpowiedzieć na pytania: Jak postęp technologiczny, wyrażający się w usieciowieniu gospodarki informacyjnej, wpłynął na zmianę rozumienia innowacji społecznych?, Jaki wpływ na definiowanie innowacji społecznych ma wzrastająca rola społecznej produkcji i wymiany kosztem wymiany rynkowej?, W jakim stopniu wspólnotowa forma współpracy w przestrzeni wirtualnej jest wyróżnikiem szczególnej klasy innowacji społecznych?

Przyjęta i stosowana przez autorkę metoda badań sprowadza się do studiów literaturowych nad innowacjami i ekonomią współpracy (dostępu, współdzielenia, współużytkowania) – analizy różnych koncepcji innowacji, w szczególności różnych definicji tej nazwy, różnych podejść do ekonomii współpracy, zestawienia wyników owych analiz i sformułowania wniosków.

Podejście do innowacji zmienia się w czasie – od podejścia technicznego, przez społeczne i rynkowe, do społecznego, ale rozumianego dziś inaczej. Inne jest obecnie kryterium wyróżnienia „społeczności” innowacji. Na rozumienie innowacji wpływa wzrost roli społecznej produkcji i wymiany kosztem wymiany rynkowej. Usieciwienie gospodarki informacyjnej znacznie wzmacnia wymiar społeczny innowacji. Wspólnotowa forma współpracy, z uwzględnieniem współtworzenia dóbr, dostępu do nich, ich współużytkowania i dzielenia się nimi, jest skrajnym przykładem przewagi wymiaru społecznego innowacji nad ich wymiarem rynkowym.

Słowa kluczowe: innowacje społeczne, innowacje rynkowe, innowacje techniczne

JEL: O3, M1

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