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Searching for entrepreneurship: The perception of the phenomenon

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Abstract

In the article, the picture of entrepreneurship, its empirical/conceptual context, discipline diversity and orientation emerging from the bibliography searching process according to relevance in Google Scholar were assessed. Preliminarily, a comparison with other forms of obtaining scientific information about entrepreneurship was made. Some evidence has been found on the directions of the possible influence of this source of knowledge on the perception of the entrepreneurship phenomenon. The popular scientific databases/search engines in terms of entrepreneurship terms retrieval were compared. After selecting Google Scholar, a set of articles about entrepreneurship was analysed. The method of literature analysis and criticism was used. In order to develop interest in entrepreneurship, it is necessary to analyse the publicly available sources of economic knowledge more often in order to prevent possible distortions of the image of phenomena and efficient detection of unfair practices.

The research popularity of entrepreneurship is high, but the limitations faced by readers interested in it may slow down the progress of scientists' achievements and the creation of a separate field, and may even cause a loop/stagnation disproportionate to the interest in this area of science. It is worth paying attention to the popularization of scientific databases/search engines, and becoming familiarized with the results of the research in this field.

1. Introduction

Entrepreneurship is a popular scientific issue developed at the same time in many areas of social sciences. It is flexible insomuch that it appears as an important research sphere in economics, management, sociology, psychology, pedagogy, law, political sciences and education. The highly permeable boundaries of entrepreneurship facilitate intellectual exchanges with other areas of science. However,

this permeability can sometimes hinder the development of the theory of entrepreneurship — it is difficult to find one's own research method due to its vast spectrum. In order to grasp the interdisciplinary nature of the phenomenon, one should read and draw conclusions not only from the field studied by a given scientist, but also from others. High substantive and technical skills, as well as the ability to select appropriate data sources, are required.

Papers about entrepreneurship are often multi- or inter-disciplinary in nature. The multitude of definitions used draws attention to the unresolved research problem of the lack of a single, coherent definition of entrepreneurship combining all applied approaches into an acceptable completeness. The problem and the ongoing scientific dialogue about the definition of entrepreneurship were pointed out by Shane and Venkataraman (Shane and Venkataraman, 2000). Despite the passage of years, it has not yet been resolved. Moreover, entrepreneurship is usually manifested as a multi-level phenomenon, as it concerns individuals, social groups, populations, enterprises (Carlsson, Braunerhjelm, McKelvey, Olofsson, Persson and Ylinenpää, 2013), which makes it difficult to smoothly and understandably move between different levels in studies. Therefore, the concept of entrepreneurship can certainly be described as polysemic (having many meanings). This diversity may hinder the phenomenon analysis due to the breadth of available content, different or inconsistent definitions and research methodologies, or the scope of each researcher interests. On the other hand, it can contribute to cutting-edge research interpreting entrepreneurship in a broader context, drawing on a variety of sources that enrich and accelerate the development of the entrepreneurship field.

The problem of the conceptualization of entrepreneurship has been at the forefront of unresolved problems of entrepreneurship for years. In order to develop this emerging field, one should focus on formulating a broad, relatively consistent and acceptable taxonomy of the phenomenon which would promote the popularization of research and scientific achievements in practice. It seems that it can also contribute to the broader interest in going beyond the patterns issues in the field of entrepreneurship, including "everyday entrepreneurship" postulated by Welter et al. (Welter, Baker, Audretsch and Gartner, 2016) and highlight difficulties in talking about entrepreneurship (Bögenhold, 2019). In this way, the participation of people interested in entrepreneurship may increase far beyond the academic audience. This interest should be observed, and the perceptual abilities should be developed and directed to proven and reliable sources of knowledge.

Nowadays, open access to scientific publications seems to be a standard, but in practice, many publications are unavailable until subscribed to or paid for. Due to financing by the institutions in which scientists are employed (or perform a duty on different principles), they can gain full access to reliable databases/search engines of scientific literature. Research centers take care, as far as possible, to provide their charges access to the latest scientific achievements. However, due to the unit's underfunding or budget cuts, it is not always possible to use such sources.

Being familiar with the skillful searching for knowledge becomes an important feature, including among other social groups. But, without access to databases, for example via a university library, people may not be aware of where to look for the necessary information. Google Scholar comes to the rescue. Although this is a relatively new search engine, it has greater range than any other source. It therefore seems to be a suitable search engine for acquiring information about entrepreneurship.

This article assesses the availability of research papers in the field of entrepreneurship in Google Scholar and the relevance of searching these materials. A preliminary comparison with other sources of obtaining scientific information about entrepreneurship was also made. It is imperative to understand the obstacles and potentials involved. In addition, selected literature on entrepreneurship available on Google Scholar was examined in more detail. The study focuses on the approach to entrepreneurship according to the scientific discipline used in the analyzed literature, research orientation (in the context of a conceptual/empirical approach), and the method used.

2. The framework of entrepreneurship — different perspectives

Entrepreneurship approaches, types and components are determined by how this phenomenon is perceived by scientists working in various scientific disciplines. Some elements are consistent, while others differ from each other. Ultimately, this diversity makes entrepreneurship a very prolific area of science. Economics plays a major role in the formation of knowledge about entrepreneurship.

Economics studies the problems of relative scarcity: individuals are willing to consume more goods and services than they have at their disposal. Unlimited and clearly insatiable needs definitely outweigh the limited resources (land, labour, capital and entrepreneurship) to satisfy them. The recognition of entrepreneurship need (in its various dimensions) translates both into the directions of entrepreneurship research, the evolution of theory, the objectives of economic or regional policy, and the popularity/availability of education, courses and training courses that include entrepreneurship education. Entrepreneurship is seen as a remedy for problems of various categories, primarily centred on shortages in society.

The primary dimension of entrepreneurship remains the entrepreneur and their economic activity. Entrepreneurs pursue economic goals (profit, rational use of resources), and look for opportunities, changes, and satisfaction. When we refer not to profit, but to 'benefits,' it turns out that the definition of entrepreneurship includes activities such as social ones. Entrepreneurs process the reality around them, and as people specializing in taking responsibility and making judgmental decisions, they influence the location, form and use of goods, resources and even institutions (Hebert and Link, 1989).

Bygrave formulated the definition of the entrepreneurial process as follows: these are all functions and activities related to the perception of opportunities and the creation of an organization to take advantage of them (Bygrave, 2004), while Gartner (Gartner, 1985) created a framework for describing the creation of new enterprises. It turns out that there is a consensus about the insufficient degree of research into the issue of the entrepreneurship process (Moroz and Hindle, 2012). The process perspective allows for a broader view of the entrepreneur, who can also be defined as an activist in the business sector, as well as in NGOs, education, healthcare, police, administration, etc.

The entrepreneur can be considered even more broadly through their characteristics, attitude and behavior. It is worth quoting the famous work by Gartner from 1989. He has been firm and diligent in proving that feature-based approaches are less scientifically productive. This is related to the ease with which one can fall into the trap of one's own work when studying personality traits — when comparing the works of various scientists, it can be concluded that the features that were to distinguish entrepreneurs from other groups are too homogeneous, which ultimately does not lead to any fruitful conclusions (Gartner, 1989). This approach has met with much criticism.

Entrepreneurship is often extended to aspects of life other than economic, and it can be assumed that while the entrepreneur is strictly related to their own business, other forms of manifesting entrepreneurship (e.g. in the form of extraordinary activity and coping at work, or in general, in life) can be equated with entrepreneurial people. Entrepreneurship, understood as an attitude to life and promoted among citizens, becomes necessary for the proper and accelerated development of the state.

Psychology deals with entrepreneurship from the personality, cognitive, temperamental and axiological perspectives of human functioning. It seems especially interesting to focus on the mechanisms which determine the entrepreneurial output and how entrepreneurs differ from other social groups.

Pedagogy treats entrepreneurship as a possible effect of human development under the influence of upbringing, environment and education. In pedagogical research, shaping entrepreneurial attitudes takes place in the process of teaching and learning. Therefore, the student and their intellectual and psychological predispositions, as well as the teacher with their knowledge, pedagogical skills and didactic tools, are the most important here.

In sociology, the emphasis is on the entrepreneur and the influence of their environment, culture, tradition, experience and family on the enterprise. The enterprise is treated as a system of social groups and a network of social relations.

Management science sets out preparation for starting an enterprise and performing activities related to running a business in the context of the associated risk. This lead to a certain paradox: business owners who hire professional managers to run their enterprises while they do other activities themselves are no long-

er entrepreneurs. A similar principle applies to professional managers, because if their job is to run someone else's business when they are not fully personally responsible for it, they are not entrepreneurs (Griffin, 2004). In a larger enterprise, where the owner is not fully involved in the business and employs a manager who is not fully responsible, paradoxically, there is no entrepreneur.

The attention to deviation from the traditional, basic perception of entrepreneurship was also given in the work of Kusio and Fiore (2020), in which entrepreneurship is primarily a professional and educational activity, and not starting a business. Therefore, they confirm that the definition of entrepreneurship may refer mainly to an entrepreneurial person who does not necessarily have to be an entrepreneur.

After citing exemplary applied definitions and approaches occurring in various areas and fields of science, it can be confirmed with certainty that entrepreneurship is a multidimensional phenomenon, difficult to recognize and define. The possible difficulty in quantifying and capturing its essence, especially at the beginning of the process of learning about this phenomenon, prompts research on the possibility of acquiring knowledge about entrepreneurship and the image that appears when using one of the most common sources.

3. Research methodology

The young market of search engines, combined with its rapid development and growing importance for society, poses challenges to economic literature. Search engine users value match quality as well as the quality and relevance of search results, and therefore, it play a key role for them (Lianos and Motchenkova, 2013). Entrepreneurship data sourcing is a key component of this research.

In order to meet the set goals and hypotheses, a two-step methodological approach was used. The quantitative bibliometric analysis with the use of a search by topic or thematic classification allowed to assess the abundance of the analyzed databases/browsers in terms of the availability of literature in the field of entrepreneurship. In this part of the study, the only material inclusion criteria used were: (1) search by keyword 'entrepreneurship' in total or in the title, and (2) open access availability.

Among many respected databases and search engines, six were selected for this analysis: Google scholar, DOAJ, Elsevier/ScienceDirect, EBSCOHost, Wiley Online Library and Web of Science. Attention was paid to including paid platforms, as well as free or offering partial free access, maintaining diversity. No particular selection key has been applied here.

Based on the results obtained in the first stage, the search engine with the broadest availability of materials was selected. A set of entrepreneurship articles that met the criteria: (1) use the word 'entrepreneurship' in the title or content of

the article, (2) the full text being available in open access, and (3) being up to the fifth page of the search engine, was selected for further qualitative analysis. No type of publication was rejected at this stage. Nineteen materials (listed in the Appendix) met the selection criteria. In addition, the reference section of each article was used to calculate the number of citations. That enabled the researcher to evaluate the state of the literature available in the selected browser.

The author is aware that the selected subset may be considered too small, but such a drastic reduction in their number resulted from the limited possibilities of the author herself. Working alone, with other, significant limitations related to the previously undertaken professional obligations, it was not possible to undertake an analysis of wider material in such a short time. Conclusions from the research conducted so far are also the reason for undertaking further attempts to deepen the topic and look for opportunities for cooperation in extending the analysis in the interdisciplinary field among representatives of other fields of science. Therefore, this work can be treated as a contribution to the further analysis of the discussed important issue of searching for knowledge about entrepreneurship.

4. The entrepreneurship knowledge source and its usability

Reliable professional literature databases may deter a reader by the limited scope of searches or the limited availability of full content with free use as open access. Assuming that some scientists may struggle with the problem of underfinancing and limited access to such databases, it was decided to check how the free Google Scholar search engine copes with economic knowledge in comparison with selected databases. The following research hypotheses were made.

Hypothesis 1: Google scholar will provide access to more scientific articles with the keyword ‘entrepreneurship’ in the title (content) than economic literature databases/searching engines such as: Elsevier/ScienceDirect, EBSCOHost, Nature, Willey Online Library or Scopus.

Hypothesis 2: The relevance of Google Scholar’s search can be assessed highly.

Being curious about retrieved literature and the emerging shape of entrepreneurship in the literature available in the analyzed search engine/bibliographic database, the author decided to test the following hypotheses as well. In the publicly available literature, sorted by relevance and available on open access through Google Scholar, the following was checked.

Hypothesis 3: The entrepreneurship phenomenon will be perceived mainly through the prism of economics.

Hypothesis 4: The empirical approach will dominate the conceptual.

Table 1. Searching for the term 'entrepreneurship' in selected databases, with the use of basic search forms

Name of database / searching engine	Total number of found works	Number of found works in the open access (OA) system
Directory of Open Access Journal (DOAJ)	12,132 (in all fields) 2,851 (in the title)	the same
Elsevier/ScienceDirect	32,762	5,303
EBSCOHost	187,007 141,608 (full text)	–
Wiley Online Library	33,035,000	886,000
Web of Science	50,719	11,519
Google Scholar	2,320,000	1,484,800 (estimated)

Source: own elaboration (date of searching: 5–7.06.2021).

In the Directory of Open Access Journal (DOAJ), two options for search term location were used: in all fields (title, abstract, keywords, author, orcid, doi and language) and in the title. The result of the search according to the first category was 12,132 articles; however, the quality of such a search leaves a lot to be desired – there were, for example, works inconsistent with the search language, and topics that were not related to the topic at all or only slightly, which generally created unnecessary 'noise.' When searching by the second option, the quality of match significantly increased, but there were only 2,851 articles. The main advantage of the search algorithm is the novelty of articles, which allows a reader to get acquainted with relatively new achievements in a given field.

In EBSCOhost, using a basic search (no additional settings or changes used) results in 187,007 scientific works. The database also allows for searching by full text, which results in gaining access to 141,608 publications that meet the criteria.

Under the banner of 'entrepreneurship' in ScienceDirect, Elsevier's premier platform of peer-reviewed literature, are 32,762 articles, 5,303 of which are open access.

The Wiley Online Library searches for the indicated keyword anywhere, sorting found works by relevance or date. With 33,035 materials found, only 886 were published in the open access system.

Using the Web of Science, i.e. a package of abstract-bibliometric databases (the so-called citation indices), users managed to find 50,719, and 11,519 open access scientific works were yielded. This is the only database in which the author encountered technical problems – the search engine's slowness and the associated delays.

Meanwhile, in Google Scholar, retrieving the word 'entrepreneurship' anywhere in the article (standard search mode), 2,080,000 scientific papers were found (date of search: 12.02.2021). Searching after less than four months, this result increased to 2,320,000 works. Interestingly, when searching for the word

'entrepreneurship' only in the title of the article, as many as 173,000 works were gained, thus still significantly exceeding the search possibilities in other databases. The key disadvantage of this platform – the inability to search only full text works that are in the 'open access' system – implies the need to use simple estimation calculations. The first ten pages of the search were checked and the following estimates were attempted: for 10 pages of the search, i.e. 100 articles, 64 full papers were obtained. Assuming that the rate of 0.64 would stay on the remaining pages, it can be hypothetically assumed that Google Scholar provides as many as 1,484,800 works strictly within the given topic. Thus, it was possible to support the hypothesis that, under the assumptions made, Google Scholar allows one to browse more scientific articles containing the slogan 'entrepreneurship' in the title (content) than the aforementioned databases. It looks quite optimistic, but only seemingly; among the first 100 articles found, there were three papers without scientific standard.

Table 2. Scientific material type, discipline and approach in the acquired sources of knowledge

The scientific material type	N
Articles (+ essays)	10
Books (monographs, handbooks, conference proceedings)	4
Reports	4
Chapters	1
Total	19
Disciplines	N
Economics	17
Management	6
Interdisciplinary (two or more disciplines)	9
Approach	N
Empirical	7
Conceptual	6
Hard quantifiable	6

Source: own elaboration.

Of the total 19 materials analyzed, the earliest one was published in 1968, the latest one in 2011. As can be seen, the indicated method of searching for materials condemns the reader to the difficulty of getting acquainted with the achievements of the last decade. The harmfulness of such a depletion of acquired knowledge for scientists who should broaden their horizons with the latest scientific achievements is high; thus, researchers should also search by date. It is different in the case of other interest groups, for which it is more important to consolidate know-

ledge than to be familiar with the newest achievements; in their case, this source works well, providing access to classical, theoretical, and empirical works, even textbooks. Probably voices may arise which say that limiting myself to searching by relevance instead of by date may be read as malpractice, but I must object to it. For databases such as EBSCOHost or Web of Science, indeed, such a restriction would be at least inappropriate, but not in Google Scholar and under earlier assumptions. In attempting to check the materials by date, the conclusion turns out to be quite surprising. In this way, highly-diversified or very detailed material covering a narrow thematic scope, or even material not substantively related to entrepreneurship, was obtained, thus losing the clarity of the image.

The citations of these works range from 77 to 16,366. Looking at the average citations (2,197) and the average citations after the rejection of extreme results (1,489), it turns out that these are valued works, discussed and used by researchers in their studies. While all 19 verified materials which contained the indicated keywords and were actually related to entrepreneurship had an appropriate quality, not all of the first 100 obtained texts had scientific quality. It was not a measure indicated in the search criteria, as the author did not even assume that texts that did not comply with the appropriate standards would appear in the search. This turned out to be a disadvantage of the study and showed that both design and further work with the literature should be kept with caution. The surprising thing about these low-quality papers was how they were fabricated (a non-existent journal with a very high IF added). Taking into account the efficiency, quantity and quality of the search of the compared databases, finding non-scientific works through Google Scholar, and less efficacious basic and advanced search possibilities that could prevent the indicated problems, the search relevance, both in the technical and substantive context, should be considered as not high, but relatively good.

How entrepreneurship is perceived in research and teaching materials determines the further perception of this phenomenon among readers and users of chosen source of knowledge about entrepreneurship. The variety of disciplines dealing with the issue of entrepreneurship should translate into more frequent exploration of this phenomenon in the works from different perspectives and emphasize the importance of intro and multi-disciplinarity in shaping a separate discipline devoted to entrepreneurship. Therefore, it is very important to check from which disciplines readers can familiarize themselves with the discussed issue, and whether the available literature emphasizes the variety of approaches used.

In the analyzed works, it turned out that economics dominates, and management rather complements the discussed content. Sometimes the approaches presented by the authors of individual works very subtly emphasized one of the disciplines more strongly, so this division can be described as difficult to assess. This is based on the author's subjective feelings based on various perspectives of entrepreneurship presented in point 2 of this paper. At the same time, the chance to get acquainted with the broader context of entrepreneurship is satisfactory; the

search includes mainly content combining several disciplines, most often including economics with management, but also sociology or psychology. The multi-aspect nature of entrepreneurship could be credibly noticed. The hypothesis that the entrepreneurship phenomenon will be perceived mainly through the prism of economics, was confirmed enough.

The greatest difficulty was to recognize whether the analyzed works are more conceptual or empirical, because the boundaries are blurring. Nowadays, it seems that the combination of these two methods gains the most followers. Problems also appeared in the case of collective works, based on an attempt to select a holistic image of the entire monograph, not only the evaluation of individual articles.

In fact, all the works, apart from the reports, contained a conceptual background. They were based on an analysis of the available literature, with devoted a significant part of the work to descriptions of the conceptual structure and the theoretical framework used so far, mainly due to the lack of agreement in to the definition of entrepreneurship and general conceptual framework. It is logical that the articles contained a conceptual approach, as authors are required to describe such a framework, whether their work is ultimately empirical or conceptual or even theoretical. This can be a vicious cycle; as Hambrick (Hambrick, 2007) noted and Shapira (Shapira, 2011) analyzed, authors are required to contribute to the theory from each submitted article, thus hindering progress. Ultimately, it was assessed that in almost all materials, a literature review was prepared, some had features or a strongly described conceptual framework, and the concepts supported a strictly empirical approach in the case of nine empirical studies. On this basis, it is concluded that, contrary to previous suspicions, the conceptual approach is slightly more dominant. It is worth emphasizing the difficulty of making such an assessment at all. What is more, research, despite its nature, often does not have sufficiently accurately described research methods, despite its considerable length, in which such information could still be included. No research hypothesis (which some scientists indicate as the basis of the research) was formulated in any of the studies indicated. The literature review, analysis and criticism were the most frequently performed.

5. Conclusions

This article, to better understand the perspective of entrepreneurship as seen using Google Scholar and popular scientific databases/search engines were compared, and articles about entrepreneurship were reviewed. The effectiveness and relevance of content searches in Google Scholar were assessed positively, especially in the context of the capacity and availability of various scientific materials. According to the literature analysis, there are some evidence of a strong dominance

of the economics approach, a slight lead of conceptual work, and a constant focus on defining.

It can be indicated that entrepreneurship in scientific works and teaching materials obtained in the analyzed source is perceived in various ways, indicating the intra- or multidisciplinary nature of the phenomenon. The definitions and approaches used in research about entrepreneurship, presented from various perspectives, allow Google Scholar users to broaden their horizons not only with classic, economic approaches. It is also worth emphasizing the approach of the authors of the analyzed works themselves, the fact that they do not limit themselves to one chosen approach, but perceive the need to broaden the research perspective. It is, therefore, a positive development.

It should be emphasized that lack of universal open access to the latest research on entrepreneurship and its significant dispersion into many fields of science limits perception, favors research centers with better funding, and ultimately slows down the emergence of a new field.

Taking into account the growing popularity of the subject of entrepreneurship, the demand for economic knowledge and the limitations accompanying Internet users trying to gain verified knowledge, it is worth taking care of popularizing scientific databases/search engines, and familiarizing oneself with the results of the research in this field. It is advisable to extend the research about obtaining economic bibliography to the area of the search algorithm.

There is also a visible need for undertaking further attempts to deepen the topic and look for opportunities for cooperation in extending the analysis in the interdisciplinary context among representatives of other fields of science. Therefore, this work can be treated as a contribution to the further analysis of the discussed, important issue of searching for knowledge about entrepreneurship.

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7. Appendix

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The crucial role of entrepreneurship education at university using different educational practices

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Keywords: entrepreneurship, education, students, universities, government policy

Abstract

In 2020, the world was unexpectedly struck by the coronavirus pandemic. Regulations introduced by the governments have affected many businesses. The key problem is a good preparation of entrepreneurs for similar crises. One of the main factors influencing entrepreneurial activities is entrepreneurship education, mainly at the university level. The article aims to analyse different education practices focused on learning entrepreneurship, especially at universities, in selected countries. The work is analytical and descriptive.

Introduction

Currently, in the era of the coronavirus, many governments have decided to introduce various restrictions which also affect the operation of many enterprises. Consequently, in such a precarious situation, there is a question about the future of those entrepreneurs who represent industries that suffered the most during the coronavirus pandemic. Thus, the key issue is linked to the changes that are taking place in the global economy in the face of the coronavirus pandemic.

Because of this difficult situation, questions have arisen about the future of entrepreneurs and entrepreneurial education. How are entrepreneurs supposed to cope in the new, post-covid world? Can entrepreneurial education help present and future entrepreneurs adapt to new challenges and find ways to overcome the new crises that will surely occur in the future?

There are several key competences that can contribute to increasing the life chances of an individual, which can be mainly associated with influencing later career prospects. According to the results of research prepared by the European Commission, participation in entrepreneurship education increases the probability of later starting a business by an average of 35% (European Commission, 2019).

Additionally, entrepreneurship education is mentioned as one of the key determinants of entrepreneurial intentions and actions (Sieger et al., 2019). What is more, the area of the entrepreneur's education is often mentioned among the other main factors influencing the failure of small enterprises, such as skills, abilities and experience (Ropęga, 2013). However, in a report by Global Entrepreneurship Monitor, entrepreneurship education at school is recognized as the weakest link in supporting entrepreneurship (Bosma et al., 2020). Despite the lack of experience and financial resources, young people are still interested in entrepreneurship, but their intentions are not consistent with their actions. Ten years ago, while almost 15% of the adult population in the European Union countries were self-employed, and in the population aged 15–24,only 4% (European Commission, 2012).

1. The theoretical framework of the research

In the modern world, the domain of competitive position is no longer only lower labour costs or lower tax burdens, but innovation. Entrepreneurship, which is often equated with creating innovation, is now considered an important factor of economic development. For this reason, well-educated entrepreneurs can be responsible for the diffusion of new ideas and technologies in the future (Sá and Kretz, 2016).

Often when we analyse the resumes of entrepreneurs we know, it seems that managing a small business requires mainly practical skills, while formal qualifications are less important. As a result, starting a business has in the past been mainly an alternative career path for those people who had practical rather than academic skills (Stokes and Wilson, 2010). Although entrepreneurs in the past did not use the achievements of entrepreneurship education, they had to learn from other sources than formal education. Nowadays, their successors acquire knowledge and skills from educational programs which are dedicated to educating entrepreneurship (Davidsson, 2008).

Nowadays, this trend has changed; entrepreneurs, especially women, more and more often possess higher education diplomas. Additionally, it is assumed that an individual can make use of entrepreneurial opportunities more often when they are better educated (Stokes and Wilson, 2010; Kailer, 2009).

The term entrepreneurship education itself (Figure 1) can refer to both general issues related to the acquisition of entrepreneurial skills and the process of starting one's own business. On the one hand, according to the narrow defin-

ition of entrepreneurship, it is mainly connected to the identification of entrepreneurial opportunities, self-employment and business development. On the other hand, the broader definition of entrepreneurship education (also known in the literature as entrepreneurial education) includes creativity, personal development, independence and orientation to action, which are not necessarily related to creating the new enterprise. The definition that we adopt has a significant impact on educational goals (OECD, 2015).

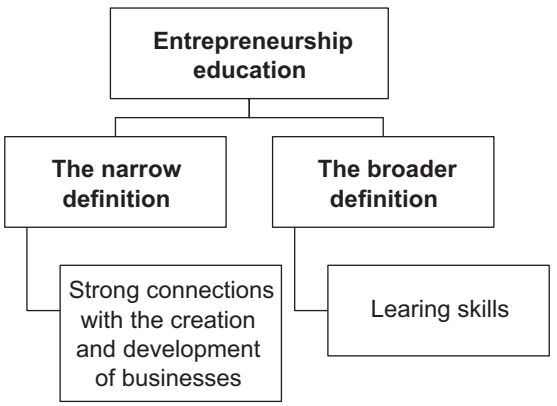

Figure 1. Definitions of entrepreneurship education

Source: own elaboration.

The way entrepreneurship is presented in the educational process is very important. Therefore, entrepreneurship education is divided into three forms (Figure 2). The first is associated with the theory of entrepreneurship, focused on a general understanding of this phenomenon. What is more, it is the most frequently used form of entrepreneurship education at universities. The second is related to providing entrepreneurs with the necessary knowledge and skills. The third form, on the other hand, is often based on experience through action, through which students learn entrepreneurship. Contrary to stereotypes, it should be offered as a general method of human action, including team action, rules and techniques that can be learned through education (OECD, 2015).

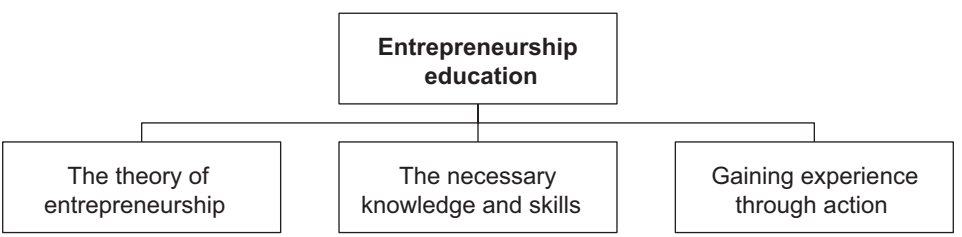

Figure 2. Three forms of the entrepreneurship education

Source: own elaboration based on OECD, 2015.

Consequently, entrepreneurship education should involve the active participation of students in the classroom as well as the consideration of decision problems (OECD, 2017). It is very important during entrepreneurship classes to focus on activities consisting of searching for an attractive idea for students' enterprise. At the same time, equally important are activities for current entrepreneurs, which subjects should be concerned on issues related to small business management (Cieślik, 2008).

The main aim of the study is an attempt to show the opportunities offered by different forms of entrepreneurship education. Consequently, conclusions derived from that research could be valuable for lecturers, entrepreneurs and also law-givers, aiming to improve entrepreneurship education at universities.

2. Research methodology

The article incudes the analysis of the entrepreneurial education in selected countries which were highly rated in the GEM 2020 report — the United States of America, United Kingdom, Germany, United Arab Emirates, Qatar, Sweden, Norway and Switzerland (Bosma et al., 2020). To that aim, in the article are analysed reports of international organisations — mainly OECD and the European Union — and papers dedicated to the subject of entrepreneurial education in the countries which have been surveyed. These analyses will illustrate how important the system of entrepreneurship education is in those countries and which practices are used in teaching.

3. Early contact with entrepreneurship at school

Education for entrepreneurship has two main objectives: to give new students entrepreneurial skills and help them make decisions about becoming an entrepreneur (Weber, 2012). Consequently, the school's task is to provide its graduates with the basics of general knowledge, but at the same time, that school should develop entrepreneurial attitudes among young people. In this way, learning practical skills will make it easier for graduates to find a job or start their own business (Kołodziejczyk and Polak, 2011).

Entrepreneurship education should become an element of curricula in the early years of primary school (European Commission, 2016). For children, the first contact with entrepreneurship is very important. However, it is not strictly linked to starting one's own business, but much more broadly, as developing creativity, self-confidence, encouraging cooperation in a group, emphasizing the search for individual abilities of a given student (Figure 3).

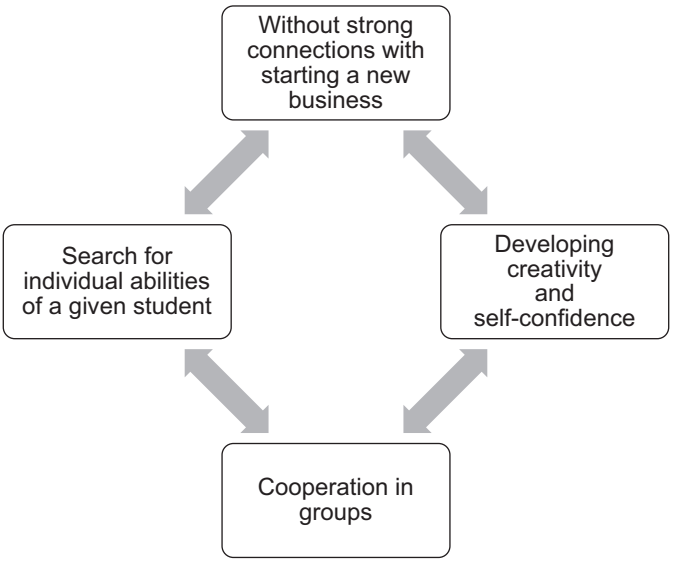

Figure 3. Entrepreneurial education in primary school

Source: own elaboration.

This type of teaching is practised in Sweden. In this country, entrepreneurship — especially in secondary education — has been present in the curricula for decades. The idea of entrepreneurship appeared in the local educational system in 1980. In the 1990s, more advanced implementation programs for entrepreneurial education were launched, but they were not common in the whole country. At the same time, among teachers, a traditional narrow view of entrepreneurship still dominated. Sweden's advantage is a specific entrepreneurship education strategy since 2009. The official strategy, which has become part of the curriculum, allows us not only to encourage students to create new enterprises, but also to learn valuable, entrepreneurial skills useful in life.

Additionally, entrepreneurship education in Sweden focuses more on the aspects of learning by doing, rather than on theoretical discussions about the definitions of entrepreneurship, connected with achievements of well-known scientists linked with entrepreneurship, like Schumpeter. This is because frequently, students involved in entrepreneurial activities can learn by doing, but also they are not always aware of that process — just like entrepreneurs.

The most visible effect of the implementation of the entrepreneurship education policy in the educational system in Sweden is the increased complexity of the field of entrepreneurship education itself. As a result, entrepreneurship education in a broader context is present throughout the school system in Sweden, while entrepreneurship education is rather limited to economic schools. In addi-

tion, the goals of entrepreneurship education are increasingly being realized in cooperation with partners outside the school (Hoppe, 2016).

Norway is also currently considered one of the leaders in the field of entrepreneurial education. The vast majority of secondary schools in Norway offer entrepreneurial education as part of knowledge imparted in various subjects, as well as through the usually compulsory interdisciplinary entrepreneurship projects in the form of mini-enterprises, organized by the Norwegian branch of Junior Achievement — Young Enterprise (Johansen, 2014). At the same time, many upper secondary schools create programs to promote youth entrepreneurship, also organizing interdisciplinary entrepreneurship projects with the involvement of local employers and the public sector (Johansen and Schanke, 2014).

In contrast to the aforementioned examples, Germany has a more pragmatic approach to teaching entrepreneurship. Entrepreneurship education in that country is offered mainly in secondary schools, promoting the classic model of entrepreneurship, which means self-employment (OECD, 2018). However, students can count on out-of-school projects, such as the national Unternehmergeist macht Schule (Entrepreneurial Spirit in Schools), a platform connecting schools and businesses, helping students to learn about different career paths and experience self-employment (European Commisson, 2015).

It is evident that many countries have no uniform strategy in teaching entrepreneurship. Support for entrepreneurship in Switzerland varies from region to region (Tajeddini and Mueller, 2009). It is the same situation in the UK, where there is no uniform, national strategy in that area. However, there are different models of entrepreneurship education in individual regions. In primary and secondary schools in the greater part of the UK (England, Wales and Northern Ireland), each teacher is individually responsible for planning entrepreneurial lessons which, however, must be consistent with the education system (Bourgeois, 2012).

At the same time, to supplement the educational system at school, there are several organizations which help teach entrepreneurship, like Young Enterprise (YE), which is a well-known non-profit company using a wide range of programs. It operates directly in England and Wales, while in Scotland and Northern Ireland, independent organizations work with YE. Therefore, students aged 8 to 11 can very early gain valuable experience related to running their own business. Similar projects are also present in secondary schools (European Commission, 2016).

Also in Switzerland, entrepreneurship education in secondary education is not common. The exception is the YES program (Young Enterprises Switzerland), which supports, like its counterpart in the UK, practical educational programs for entrepreneurship in Switzerland (Swiss Startup Monitor, 2017).

A similar situation exists in the Netherlands, where entrepreneurship education is not strictly defined in the curriculum, but some schools offer it. In addition, through Jong Ondernemen's programs, students in primary and secondary schools can create their mini-enterprise. In the case of primary schools, entrepreneurial

education focuses on entrepreneurial behaviour, i.e. creativity, problem-solving or developing social skills (Bourgeois, 2012).

Some Arab countries have recently taken a high position in entrepreneurship education rankings. One of them is Qatar, where the availability of entrepreneurship education in primary and secondary education has most often been dependent on the enthusiasm and initiative of individual teachers, school management and their collaborators, enterprises or educational institutions, as well as their support networks (Gangi, 2017). The second example is the United Arab Emirates, where in recent years, the government has significantly increased its support for small and medium-sized enterprises, also focusing its activities on stimulating the entrepreneurial spirit of citizens, also by entrepreneurship education (Tong et al., 2012).

To summarize, learning entrepreneurship at an early age can increase creativity, innovation and independence. At the same time, it increases tolerance of risk and allows one to learn from their failures. An appropriate educational policy can help to increase entrepreneurial attitudes. As a result, national regulations in the field of entrepreneurship education are crucial for the success of that education (El-Sokari, Van Horne, Huang and Al Awad, 2013).

4. Educational practices in entrepreneurship education at the university

At the same time, it should be noted that although teachers in primary and secondary schools have the opportunity to promote entrepreneurial attitudes, universities play the crucial role in influencing the choice of career as entrepreneurs by students at a later date. It is linked with transferring important and useful knowledge in the field of enterprise, which takes place in higher education. Therefore, by using knowledge and skills acquired during education at the university, graduates can develop newly established enterprises (Potter, 2008). Consequently, education for entrepreneurship conducted in higher education institutions should play a special role (Volkmann, 2009).

The history of entrepreneurship education at universities is linked to achievements in the area of research on entrepreneurship, especially in the USA. Two Americans were pioneers of entrepreneurship as an academic subject. In 1947, the first academic entrepreneurship training course, New Business Management, appeared. Six years later, Peter Drucker created a course dedicated to entrepreneurship and innovation at the University of New York, and his book about it gained worldwide fame (Klandt, 2006). That was only the beginning of the presence of entrepreneurship education at universities, which was not connected with the rapid dissemination of that. The dynamic process of development of entrepreneurship education in the USA started later, in the 1970s, and continues to this

day. It is certainly supported by the strong rooting of individualism in American culture (Sahaym et al., 2018; Pinillos and Reyes, 2011).

In the USA, entrepreneurship practices are used in a wide range of areas. In most American universities, all students come into contact with entrepreneurship issues during their studies. For example, Stanford University offers a wide range of courses, some of which are part of the obligatory curriculum, while others are electives. They are focused on issues related to entrepreneurship, transfer of technology, and sharing knowledge with established technology companies (Wilson, 2009). Moreover, in the USA, successful entrepreneurs usually have higher academic degrees; often, very talented people are invited to elite universities (Elert et al., 2017).

Another important factor influencing entrepreneurship education at universities in the USA is the fact that higher education institutions are under pressure from the expectations of students who pay high tuition fees, expecting in return a high degree of usefulness of the curricula. Another important thing is the remuneration of university employees, which reflects not only the importance of a given field of knowledge for the economy, but also the individual achievements of an academic teacher, both in the field of research and teaching.

What is more, another positive factor influencing entrepreneurial education in the USA is deregulation: American universities are characterized by a high degree of autonomy. Therefore, they can take advantage of opportunities to build their strengths, while cooperating in research and teaching at the same time. Moreover, the USA is still increasing the internationalization of university activities, such as cross-border cooperation with universities from Europe. In addition, university-business collaboration is also of key importance. A good example is the entrepreneurship sector in Silicon Valley, which has evolved in close collaboration with researchers at the neighbouring Stanford University (Elert et al., 2017).

A similar situation in that area also exists in the Netherlands, where there are more and more common public-private partnerships between vocational education, universities and the business sector (OECD, 2019). Likewise, in the United Kingdom in recent years, there is increasing pressure on universities to fulfil their mission of knowledge sharing in its broader context, by the commercialization of research and partnership between universities and businesses. Moreover, in the UK, universities are encouraged to increase the amount of research. Consequently, many higher education institutions in that country have a strong entrepreneurial culture associated with the multidimensional entrepreneurial practices of their scientists (Abreu et al., 2016). Apart from that, an important source of financing for entrepreneurial education programs in the UK is domestic funds, such as the Higher Education Innovation Fund, which enables each university to obtain significant financial resources for distribution between its units (Bischoff, 2017).

The outstanding model of entrepreneurship education is practised in Cambridge University, which offers several dozen entrepreneurship courses in a wide

range of undergraduate and postgraduate studies, including engineering studies. They are led by both faculty employees and real entrepreneurs, whose main aim is to encourage students to solve real business problems. Their mission is complemented by student clubs and interdisciplinary university projects. For example, Cambridge Enterprise facilitates the commercialization of technology and the capitalization of knowledge, also enabling students and graduates to obtain consulting and support in gaining funds for setting up a new business. Therefore, Cambridge is proof that entrepreneurship is strongly integrated with local culture — more than 1500 high-tech companies had been established, often in cooperation with the University of Cambridge. Consequently, the Cambridge region is well-known for its successful entrepreneurial ecosystem, also known as Silicon Fen (Bischoff, 2017).

That model is also implemented in the Netherlands, where colleges offer the support of trainers and mentors, who, like in the USA, come not only from universities but also from enterprises. They can be a good inspiration and support for future entrepreneurs among students and graduates. What is more, the subject of students' thesis is more and more often connected with their experience as employees, focusing on solving problems typical for companies. Additionally, the importance of regional entrepreneurial ecosystems in the Netherlands has increased in recent years, which is linked with a higher level of cooperation between often rival institutions. A good example of a successful initiative in that area is Startup Delta, which combines all Dutch ecosystems into one centre. In this way, it helps in the development of various types of start-ups, at the same time allowing for the exchange of knowledge and best practices in entrepreneurship. A remarkable sign of the Netherlands' policy focussed on entrepreneurship is also reflected in the evident specialization of individual centres in the field of innovative research and development (OECD/EU, 2018).

A similar situation takes place in Switzerland (Swiss Startup Monitor, 2017). Most universities in this country offer entrepreneurship programs, providing education in both theoretical and practical aspects of entrepreneurship. As a result, the increase in the entrepreneurial tendency of Swiss students is evident (Ruda, Grüner, Christ and 2014).

In the United Arab Emirates, there are also many programs and initiatives at the university level that have been designed to foster an entrepreneurial culture among young people. A good example is the initiative Beyond the Pitch, related to innovative methods of teaching entrepreneurship. The main aim of that organisation is to inspire students from Emirates to find their path to success. In addition to theoretical classes, there are also simulations of business activities, internships in selected companies, as well as meetings with their owners. That cooperation is also continued outside the university, where students of entrepreneurship courses can receive help from business advisors and collect contacts from the virtual community (El-Sokari et al., 2013).

In Qatar, there were only a few entrepreneurship courses for many years, from the 1970s, existing only as part of the economic and business specialization at the University of Qatar. There was neither a major nor a specialization in entrepreneurship in undergraduate and postgraduate studies. Education for entrepreneurship appeared at the University of Qatar very late, after 2011, as part of the implementation of the Qatari Strategy for the years 2011–2016. As the oldest and main university in that country, the University of Qatar decided to implement entrepreneurship education in its educational programs. Additionally, that university launched a specialization in entrepreneurship for undergraduate students when parallelly future engineers started to teach entrepreneurship.

In addition, within the University of Qatar was established the entrepreneurship centre which aim is to disseminate an entrepreneurial culture not only among students of that university but also among lecturers. What is more, the University of Qatar gained cooperation from the enterprise sector and other academic centres. Now, students are aware of the importance of entrepreneurship, and an example of that is that entrepreneurship often becomes a second specialization for students while the percentage of its graduates is still growing (Gangi, 2017).

In turn, German entrepreneurship education is exceptional. Universities have general entrepreneurship courses for all students and some that are dedicated to business students. Although the majority of entrepreneurship lecturers in Germany have completed a degree in economics, in some cases, universities employ entrepreneurs with research and teaching ambitions. As a result of this policy, more and more students have experience of being an entrepreneur. It is worth noting that in the case of Germany, the percentage of potential entrepreneurs is much higher than in other countries among doctoral students and academics cooperating with German research institutions (Klandt and Voklmann, 2006).

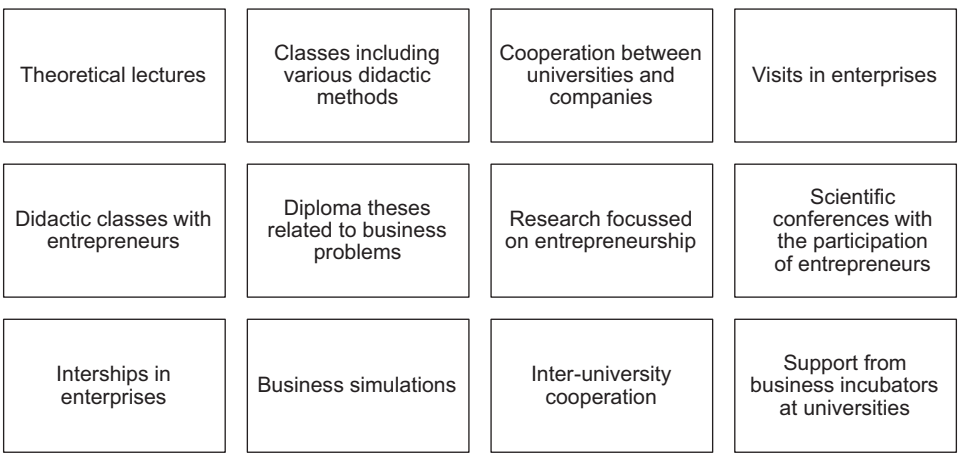

Figure 4. Practices of promoting entrepreneurship at the university

Source: own elaboration.

To summarize, entrepreneurship education at a university should be the culmination of entrepreneurial education with a wide range of methods (Figure 4). At this educational stage, the student should be equipped with specialist knowledge useful in running a business. To achieve that aim, one way is classes about the principles of running a business.

However, universities all over the world implement various didactic forms, activating students during workshops and business simulations, meetings with entrepreneurs used to broaden the knowledge acquired during the lectures. At the same time, a constant element of study are internships in enterprises which can give students a good opportunity to confront the theoretical knowledge acquired at the university with the economic reality. The result of such internships is also diploma theses based on the working experience of students.

What is more, universities more and more often cooperate with enterprises, as they realize benefits from equipping future graduates with the skills required in the labour market. The cooperation with enterprises can be associated with valuable, practical projects conducted by scientists based on experience gained from the business. Moreover, it is particularly important to support potential entrepreneurs through tools such as business incubators. Additionally, cooperation with enterprises can be associated with valuable, practical projects conducted by scientists based on experience gained from the business. A good example would be universities that cooperate not only within the framework of regional, but also international, agreements.

5. The key role and aspects of entrepreneurship education at universities

Entrepreneurship education should become an integral part of the curriculum at all stages of education (Figure 5). In the early years of education, it should be part of other subjects and be oriented towards stimulating creativity, orientation to action and independence. Consequently, the emphasis should be on teaching all life skills, not only those that are useful in the enterprise. Later, at subsequent stages of the educational process, starting from the secondary school level, entrepreneurship should constitute a separate subject, which is mainly focused on acquiring skills in the field of starting and running a business (Johansen, 2014).

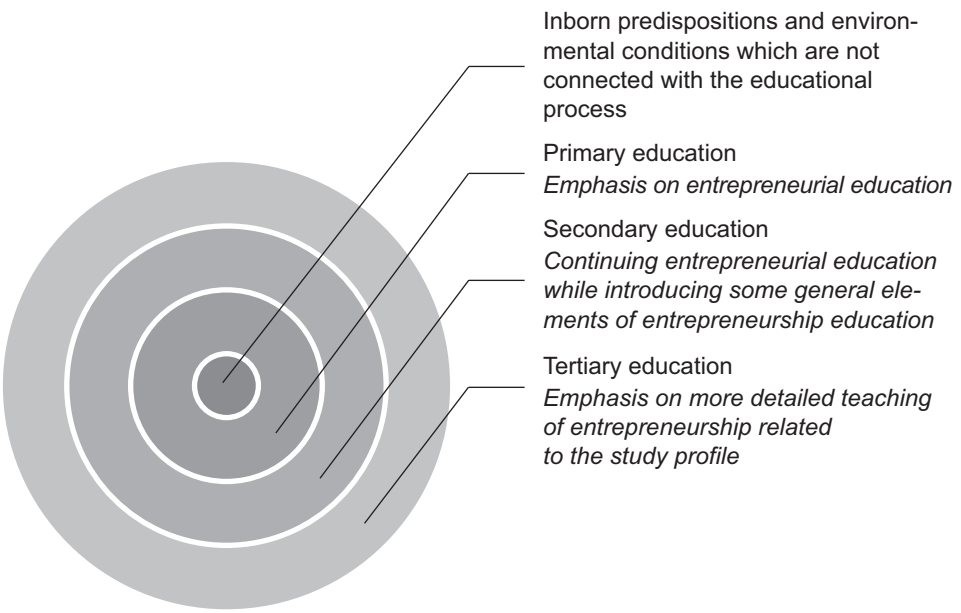

Figure 5. The stages of the educational process and their role in the entrepreneurship education

Source: own elaboration.

It is worth noting that the decision to start a business often appears not strictly after graduation, but after the initial period of employment when graduates have the opportunity to gain the necessary experience in the field of enterprises and markets. Graduates with a good business idea are often under a lot of pressure — not only economically but also culturally — to find a job quickly. They are at a very favourable time in their life to start their own enterprise as they still have relatively few obligations and needs. However, universities are trying to fulfil their role in terms of providing expert knowledge, while sometimes neglecting the important issues related to the creation of a strong academic community focused on scientists, students and entrepreneurs (OECD, 2018).

What is more, supporting entrepreneurship by universities is in this context linked with support of the creation of new ventures. However, skills training is also important, because it is focussed on certain skills and competencies, especially those related to problem-solving, creativity and interpersonal skills. This can lead to the development of those entrepreneurial skills and attitudes that are crucial to starting and running a business in the future. The clue task for the university and the business community is to recognize and promote skills that enhance the capabilities of entrepreneurship (Potter, 2008).

However, setting up one's own enterprise does not mean that its founders will be entrepreneurs forever (Sieger et al., 2019). The universal nature of entrepreneurial education should be connected with a starting point for the development of relevant competence, regardless of the subsequent entrepreneurial career, also

applicable to the function of the management in the enterprise (Volkmann et al., 2009). Therefore, education for entrepreneurship can be useful not only for future entrepreneurs, but also for representatives of various industries and social groups such as students of various faculties, corporate employees, politicians, financiers, industry consultants, doctors, lawyers, programmers and innovators (Manimala and Thomas, 2017). A good idea is the increasing implementation of educational programs about entrepreneurship for participants of various types of postgraduate and doctoral studies and employees of the research universities — especially technical ones (Cieślik, 2008).

Though it is not possible for any variable, such as the aforementioned entrepreneurship education, to lead directly to the success of a given entrepreneur without the participation of other factors, it was proven that many other variables affect an entrepreneur's ability to succeed (Potter, 2008).

Consequently, it is difficult to identify success factors common to all dynamically developing enterprises, because it is related to the diversity of economic sectors as well as individual development paths. Entrepreneurship education depends in this context on the fact that knowing the barriers to starting entrepreneurship perceived by students and their expectations regarding education, it is possible to create programs to support entrepreneurial activities of young people that meet their needs. This can be achieved by the best practices applied at universities (Volkmann et al., 2009; Kołodziejczyk and Polak, 2011).

What is more, the university must reduce uncertainty among students, which will allow them to better prepare for very different, unpredictable challenges (Potter, 2008). Consequently, entrepreneurship education in higher education should be offered in all fields of study to unlock the entrepreneurial potential of students while increasing their chances of success as entrepreneurs or employees (El-Sokari et al., 2013).

Conclusions

The first goal of entrepreneurship education is connected to convincing young people that they can become entrepreneurs and start their own businesses. Consequently, students should be equipped with the necessary skills to achieve that goal (European Commission, 2016; Potter, 2008). Therefore, if the state aims to increase the number of innovative enterprises, it should create appropriate conditions for the development of innovative attitudes previously at school. As a result, graduates are more likely to have a successful career as entrepreneurs (Kołodziejczyk and Polak, 2011).

However, traditional teaching transfers only a part of the knowledge useful in the future career of an entrepreneur. In the case of teaching entrepreneurship, teachers often decide to implement various modern teaching methods so students

can learn entrepreneurship through action mainly by case studies, business simulations, meetings with entrepreneurs. The mentioned forms of education usually allow students to train to work in a group and prepare public presentations. At the same time, universities more and more frequently pay attention to educating well-educated, entrepreneurial graduates who will work not only for profits but also for the whole society. To that end, entrepreneurial learning should be commonplace in universities. Entrepreneurial skills will be useful not only for future entrepreneurs but also for employees. It is connected with the fact that everybody has to be entrepreneur in life (Manimala and Thomas, 2017; Jarman, 2013; Volkmann et al., 2009; Cieślik, 2008).

Higher education plays a crucial role in shaping entrepreneurial attitudes, but there are many other factors that have an influence on the creation and later success of the new enterprise, such as the field of study, gaining relevant work experience, and finding shareholders. It should be remembered that ultimately, it is not the number of graduates who will set up their own business that is decisive, but the percentage of graduates who feel satisfied with being an entrepreneur, that is of key importance (Sieger et al., 2019).

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Fair Trade: Shortcomings and contemporary challenges

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Abstract

The aim of this paper is presenting the Fair Trade movement in pragmatic categories, disassembling the core components to discuss them more closely, and drawing an image of what Fair Trade really is. This article has also confronted over 60-year-old fundamentals of Fair Trade with modern global problems and new political doctrines, shedding the light onto future prospects of the movement. By collecting the data and analysing the mechanisms of the Fair Trade model, this paper has attempted to discuss the current shape and effects of Fair Trade, exposing the flaws and the assets of the organization to see if its role is significant in the world trade system. The conclusions are mainly negative — Fair Trade has a minimal share in global trade, presents discussable effects on economic well-being of people and outdated agricultural doctrine, putting in question its sustainability. Fair Trade has rarely been subject to analysis from this perspective, and it can prove to be a starting point for future research.

1. Introduction

Defining what the Fair Trade movement is does not create a challenge in current times, as one unified definition was formed back in 1999 by major Fair Trade organizations, and it reads as follows:

> Fair Trade is a trading partnership, based on dialogue, transparency and respect, that seeks greater equity in international trade. It contributes to sustainable development by offering better trading conditions to, and securing the rights of, marginalized producers and workers — especially in the South. Fair Trade Organizations have a clear commitment to Fair Trade as the principal core of their mission. They, backed by consumers, are engaged actively in supporting producers, awareness raising and in campaigning for changes in the rules and practice of conventional international trade. (WFTO, 2021)

The basic concept of Fair Trade is to empower producers that are either left out of the global trading system or marginalized, by offering them special distribution channels and a price more adequate than the one offered on the free market, propelling them to the ultimate goal of getting out from poverty, stagnation and poor living standards. By definition, it should positively affect also the consumers and markets, sending out a message for a change in global trade rules, thus repairing the flaws of modern capitalism.

The research questions are: how does the movement work and distribute income? What are the costs of participating in Fair Trade? What is the market share of Fair Trade products? How do the foundations of Fair Trade hold up in light of contemporary global challenges?

2. Theoretical framework of the research

Since the unification of Fair Trade organizations from around the globe in 2002, many publications have discussed the Fair Trade phenomenon, evaluating its effects on consumer choices. Producers were also taken in consideration, but primarily only those associated with Fair Trade. Surprisingly, the main issue that most economists had in the past (Valiente-Riedl, 2016; Sidwell, 2008; Henderson, 2008) with Fair Trade has been the sole purpose and "morality" of intervening in basic functioning of markets, and not the real effects of the movement on associated and non-associated producers, irrespectively of being negative or positive. Sadly, for those researchers and observers, the livelihood and prosperity of people at the bottom of international supply chains are not so important when economic paradigms seem to be endangered and in question, focusing more on the debate as to whether fully introduced free trade would be more effective than the concept of Fair Trade. On the other hand, international decision makers endorse and incorporate the ideas of Fair Trade in their programs. The European Union (European Commission, 2009) actively supports and monitors Fair Trade, despite its long term protectionism policy in the trade of agricultural products (Granville and Dine, 2012). Promoting Fair Trade is directly referenced in the Lisbon Treaty (Martens and Orbie, 2018).

Fair Trade concentrates on the flaws of global economic system, especially the effectiveness of the free trade system. The main issue that Fair Trade currently highlights is the marginalization of small-scale farmers and producers in the world trade system, specifically their access to the global value chains, their capabilities to manage the terms of trade and abilities to gain market information. The organization addresses these topics in Fair Trade principles and realizes them in specific business mechanics, which will be discussed in the following paragraphs.

2.1. Aims and principles of Fair Trade

When analyzing the structure of Fair Trade, a simple division must be created to understand the roles of various entities; there are big umbrella organizations recognized by WFTO, operating on the global level. and producer organizations, which operate on regional level. The basic cells of Fair Trade are registered producer and worker cooperatives, which are members of the aforementioned producer organizations based in one country, which are then assigned to one of three continental networks: Fair Trade Africa, Network of Asia and Pacific Producers, and the last one for Latin America and the Caribbean, named *Coordinadora Latinoamericana y del Caribe de Pequeños Productores y Trabajadores de Comercio Justo* (FLO website). These three organizations are main shareholders of Fair Trade International (FLO), which main purpose is to control the licensing and labeling side of the movement. In 2018, there were 1,707 certified producer organizations in the structure of Fair Trade, consisting of almost 1.8 million farmers and workers (FLO, 2021d).

The aims of Fair Trade have evolved through the years of its existence by responding to criticism, new standards of international organizations and global moral principles. The current 10 basic principles of Fair Trade (WFTO, 2017), established in 2017, fall in line with the United Nation's Sustainable Development Goals.

— Creating Opportunities for Economically Disadvantaged Producers — supporting small scale agricultural producers and empowering them towards self-sufficiency and ownership.

— Transparency and Accountability — this point guarantees that the organization shares all viable information on every level and secures participants. It also reports to the public, partners and stakeholders.

— Fair Trading Practices — the organization does not maximize profit at the expense of small producers, but instead creates instruments for the trade environment which cares about their well-being and living standards. On the producer side, the organization guarantees the quality and quantity of the product, while on the buying side, it assures that the payment will be on time and in fair amount. The system also recognizes the disadvantages that Fair Trade suppliers and producers face in cash flow by establishing pre-payments, which are interest free, of at least 50% of contract value in case of handicraft, and 50% of contract value with reasonable interest rates (not higher than rates offered by third parties) in case of food produce. Fair Trade also secures producers and suppliers from experiencing financial losses when the buyers cancel orders. In this situation, buyers are obliged to pay compensation for the work already done by suppliers. The organization also provides help with securing intellectual property of producers (patents, traditional craft designs, trademarks, regional authenticity etc.) and works actively to avoid unfair competition between parties involved in regional Fair Trade organizations.

— Fair Payment — the core of Fair Trade movement is to provide producers with fair and equal payment for their work, suited for their local economic environment. This principle consists of three fundaments.

a) Fair Prices — are "freely negotiated through dialogue between the buyer and the seller and is based on transparent price setting. It includes a fair wage and a fair profit. Fair prices represent an equitable share of the final price to each player in the supply chain."

b) Fair Wages — are "an equitable, freely negotiated and mutually agreed wage, and presumes the payment at least a Local Living Wage."

c) Local Living Wage — "is a renumeration received for a standard working week (no more than 48 hours) by a Worker in a particular place, sufficient to afford a decent standard living for the worker and her or his family. Elements of a decent standard of living include water, housing, education, health care, transport, clothing, and other essential needs, including provision for unexpected events."

— Ensuring no Child Labor and Forced Labor — this principle directly refers to the Sustainable Development Goals (SDG), point 8.7 (UN, 2021). Eradicating forced labor (including child labor), modern slavery and human trafficking. The organization assures us that every Fair Trade branded product was made and delivered without using child and slave labor.

— Commitment to Non-Discrimination, Gender Equity and Women's Economic Empowerment and Freedom of Association — this principle concurs with the SDG's fifth goal. The organization does not discriminate against anyone on any basis and actively promotes gender equality and the empowerment of women. WFTO also respects the basic solidarity right to form and join trade and working unions, and in regions where it is difficult, helps to enable those rights.

— Ensuring Good Working Conditions — this principle states the organization's compliance with International Labor Organization standards.

— Providing Capacity Building — commitment to the mission of providing the producers and workers with the means to self-develop and expand the business, mainly by increasing skills, production capabilities and reaching new channels of sales and distribution, either Fair Trade or not.

— Promoting Fair Trade — raising awareness of the need for a global trade system that guarantees a greater justice. The organization also promotes a consumer-friendly approach, providing full information about the producer, product and its road to the store shelf.

— Respect for the Environment — Fair Trade products are created with the use of raw materials, from sustainable, mostly local sources. Renewable energy is used to reduce greenhouse gas emissions, and producers need to minimize the impact of their waste stream on local environment. Agricultural commodity production requires organic methods, and the use of pesticides is very limited.

The aforementioned principles create a basic guideline for all parties involved in the Fair Trade structure. More detailed are the compliance criteria, which con-

sist of points that must be achieved by members of the structure in specific deadlines (WFTO, 2020), but those are still open to interpretation and lack more universal indexes and indicators that would create a baseline for simple research, such as to what extent those basic principles are respected by the members of Fair Trade. Clearly, some of the instruments are provided only for associates and auditors in the Fair Trade Guarantee System. Anyone interested in the effectiveness of the Fair Trade movement needs to rely on WFTO and Fair Trade International reports, which lack many details, like changes in the average Fair Trade household income per region or value of sold Fair Trade products. Fair Trade International also publishes research about the effects of their projects in different parts of the world, but as the organization admits itself on website (FLOa, 2021), there are still large gaps when it comes to knowledge about some sectors of the operation. The alternative would be the results of field research by academics, but historically, not many of those were conducted. The latest and most extensive research made by the organization dates to 2021 and presents changes in household income of cocoa farmers in Côte d'Ivoire (FLO, 2021a), but similar research is not obtainable for all of the Fair Trade sectors.

2.2. Instruments of Fair Trade

The main and primary aim of Fair Trade is allowing producers to fetch a fair price for their produce on any market, whether local, regional or international. This goal is achieved by utilizing the concept of Fair Trade Premium and Fair Trade minimal price. The latter is set accordingly to the global market price of each category of product; if the global price is not sufficient to cover the costs of production and give producers a fair profit, then the minimal price comes into the play and sets the standard that Fair Trade associated buyers need to offer (Grącik-Zajączkowska, 2012). They can, of course, offer a higher price, if they so desire. The premium is a fixed amount added to the base price of the product, usually defined in additional cash for each pound or ton bought; in the case of some products, the premium is calculated as percentage of offered price. This mechanism ensures that producers sell their product with higher profit than the market average, even when the prices offered are higher than the Fair Trade minimal price (Dragusanu, Giovannucci and Nunn, 2014).

However, the additional profit in the form of a premium cannot be freely spent by the producers. It is accumulated by producer organizations, which must decide by democratic means how to invest those additional funds in accordance to Fair Trade principles and aims (Dragusanu, Giovannucci and Nunn, 2014). Typically, it should be used for endeavors like the construction of schools, local education, healthcare or buying new agricultural equipment (Grącik-Zajączkowska, 2012). The reason for this specific solution is simple: unified producers and workers can achieve more being unified than alone, and it allows also greater funds to be accumulated and spent on meaningful projects for the community in the specific region, not only on a single local farm.

This mechanism can only work if producer and trading organizations are certified by Fair Trade International and are recognized as full, active members (FLOCERT, 2021). To do that, they need to go through detailed application and certification process, which is handled by FLOCERT, a Fair Trade International subdivision dedicated entirely to maintenance of licensing (Dragusanu, Giovannucci and Nunn, 2014).

To apply, either the producer or trader organization needs to fill out the online form and send it to the regional bureau of FLOCERT. At this step, a provisional calculation is created to prepare the applicant for long-term costs. The application fee is fixed at the amount of 565 euro, but each year, FLOCERT charges the applicant with varying costs, depending on the number of certified products, scope of the production, members of the organization and hired labor (FLOCERT calculator, 2021). After positive feedback, FLOCERT charges the organization the certification and processing fee for the first year. The certification fee for the first year may vary from 1,545 euro to 2,940 euro, depending on the scale of business (based on FLOCERT example calculations — a small coffee producer organization based in Kenya, FLOCERT calculator, 2021). The processing fee depends on the size of organization, number of requested products to certify and other, unspecified variables. In sample calculations, considering a small scale organization, the estimated fee was 440 euro. After the first year, which ended with positive outcome audit, the rates become fixed (1,260 euro and 190 euro) and are charged annually. The certificate is issued initially for 9 months and will be automatically extended for the rest of three year cycle, if the organization complies with the most important standards. The license can be renewed for the next cycle, if the organization proves that its operation is compliant with Fair Trade guidelines and standards in the renewal audit (FLOCERT, 2021). It is necessary to note that each licensed product in the organization generates additional certification and processing fees; also, producers are not obliged to sell all their produce through the Fair Trade channels, in case they cannot find buyers in time, or just choose to also operate on other markets (Dragusanu, Giovannucci and Nunn, 2014). To summarize, the estimated certification costs for the full cycle will come up to the amount of 5,450 euro. The minimum salary in Kenya is 13,572 Kenyan Shillings (Trading Economics, 2021), which at the moment of writing this paper is worth around 105 euro (Central Bank of Kenya, 2021). This means that full certification cost equals around 52 monthly salaries of a minimal-wage worker, assuming that Kenyan agricultural workers even fall into that classification.

3. Research methodology

The overview of Fair Trade model was based on existing literature and research. Reports and documents provided by Fair Trade organizations were also used to analyse the scope of the movement and mechanisms behind it.

To estimate the importance of Fair Trade in the global trade system, statistical data was gathered from multiple sources (e.g. World Trade Organization, Food and Agriculture Organization, Fair Trade International) and then put together to see how much of the global market is accommodated by Fair Trade products.

Based on these steps, a discussion was formed, pointing out and discussing the weak and strong points of the whole movement, ending with conclusions and an outlook for future.

3.1. Share of Fair Trade products in global trade

According to the World Trade Organization, in 2019 the global value of merchandise export was 19.019 trillion dollars, and agricultural products value of agricultural merchandise was 1.783 trillion dollars. By dividing those numbers, it is clear that the export of agricultural products, which the Fair Trade movement mainly produces, was worth 10.67% of the whole global export. This can give context to what portion of global system Fair Trade is trying to accommodate. Unfortunately, FLO does not share anymore the value of sold Fair Trade products; instead, it provides the quantity. To show the share of Fair Trade products on the global market, the three best-selling products will be presented: coffee, bananas and cocoa. According to The Observatory of Economic Complexity (OEC, 2021), the share of coffee, bananas and cocoa in world trade was, in order: 0.17%, 0.079%, 0.053%,

In the analyzed year, 2019, the latest reported by FLO at this point, associated producers sold 824,404 tons of coffee (FLO, 2020). According to International Coffee Organization (ICO), the global amount of exported coffee was 7,676,940 tons (ICO, 2021). It means that 10.74% of exported coffee was of Fair Trade origin.

The newest data on banana export is for the year 2018, in which the global volume of export reached 19,205,800 tons (FAO, 2018). Fair Trade producers contributed 686,930 tons of certified bananas. This gives 0.036% of the share in this product's global trade (FLO, 2020).

4,105,656 tons of cocoa were exported in 2019 (FAOSTAT, 2021). Fair Trade producers contributed by 618,633 tons (FLO, 2020), which translates to 15.07% of this product's global trade.

Table 1. The share of Fair Trade products in global trade (2019)

Product	Volume of Fair Trade Export	Share in global agricultural trade of product
Coffee	824,404 tons	10.740%
Bananas	689,930 tons	0.036%
Cocoa	618,633 tons	15.070%

Source: Author's computation with data extracted from FLO (2020), WTO (2020), ICO (2021), FAOSTAT (2021).

The share of these three Fair Trade products in the global trade system is not impressive for many decades of the movement's activity, but it cannot be called completely marginal. Coffee is clearly the most important product for Fair Trade, as it is has the biggest share in the global market. Cocoa also seems to be a strategic product, as it holds a large portion of the market, which is a very problematic one in context of environmental sustainability. Still, taking into consideration the scope and portfolio of Fair Trade products, in the global perspective, it creates a niche, a very distinct one, but still a niche. Perhaps the results would be better if producers could sell all their products through Fair Trade distribution channels, but that is unlikely due to the fact that this supply chain ends in developed countries and aims for a specific, more wealthy consumer (Arnould, Plastina and Ball, 2009). Also, share of Fair Trade products in global market would benefit from more diversified producer profiles. In the current Fair Trade model, producers are motivated to raise their effectiveness while maintaining the sustainability of production and a low environmental footprint. This situation traps them in a cycle. For example, cocoa producers usually end their work with raw cocoa at the point where it can be transported and processed further in a manufacturing plant (UNCTAD, 2016). Ending production at this point deprives producers of possible added value. It is possible for them to grow more substantial in the supply chain by processing cocoa into powder or extracting oil from it. This way, their portfolio of products extends and can contribute to increasing competitiveness on international markets.

The same concept applies to producers of coffee, sugar cane or cotton. Fair Trade should not only care about creating a better livelihood for people working in agriculture, but also helping them to advance, and possibly change their work, and by that affecting regional economies, and overall, global trade. In the current situation, possibly the most profit of the Fair Trade concept can be made by traders and manufacturers, as they get the product in its final form to the consumer, who finally willingly pays a higher price for a better product with better impact.

3.2. Fairness of trade

The most common talking point about Fair Trade is simply the idea of fairness in trade, as many question if it is necessary to create a handicap mechanism in an already established operation. The simplistic argument is always the same: a trade transaction comes to life only if it is appealing for both sides (Kurjanska and Risse, 2008). While it is true in a model better known in developed countries, where both sides are able (have means, resources and information) to find another partner for business, it does not translate well to the situation in less developed countries. A small scale producer of raw agricultural product is often very limited in the number of business partners and has no means to seek further. In those countries, it is a lot harder to gain capital for investments, access to information

is usually limited or poor quality and institutions do not assure security. This can easily be seized as an opportunity by buyers with access to bigger markets: they can offer a lower price, knowing that the producer will sell them their product anyway, as they have no choice. So, despite the free market logic behind the trade itself, it must be acknowledged that it does not work the intended way in every place on Earth.

A commonly-repeated argument against Fair Trade is price discrimination — again, a critique based on an ideal world of free market rules. The point is that the Fair Trade mechanism helps producers that struggle to sell their product and create a profit, and by that it is corrupting the market, as those entrepreneurs would go bankrupt in normal circumstances. This creates a situation of generating artificial supply surplus with low quality product, which then affects the prices on the market (Claar, 2011). That would be true in a case where Fair Trade producers would be obligated to sell all their produce with Fair Trade licensing and Fair Trade buyers would be entitled to offer contracts for all the stock of associated producer. But it does not work that way. Fair Trade supply chains only offer an additional way out, an access to new markets; they do not necessarily mean that they have a guarantee of selling at best price all of their products. Also, in situations where market price is better than the minimal Fair Trade price, the producers do not achieve better profits; the only additional amount paid is the Fair Trade premium, which cannot be freely spent.

3.3. The costs and profits of Fair Trade producers

A valid argument concerns the aforementioned licensing costs and overall adaptation costs. Environmental sustainability and organic agriculture requires many farmers to start the lengthy and costly process of adaptation. Those costs are calculated into the Fair Trade premium, but often it is not sufficient, and additional annual fees can cut those benefits even further (Wydick, 2014). The licensing process requires an overhaul, in accordance with the Fair Trade principles of Transparency and Accountability.

Many farmers and workers may be discouraged from joining the Fair Trade movement by the length and cost of licensing process. The most marginalized cooperatives, even in bigger groups, might have problems, or just not enough resources to get through the corporate machinations of FLO and FLOCERT. On the one hand, this situation prevents the devaluation of Fair Trade standards and lowers the risk of having too many organizations that will try to take advantage most of the mechanism and offer a product, that does not meet the basic requirements. On the other hand, it impedes the growth of the movement, by ironically excluding those most excluded. The only solution to this is to actively, without bureaucracy or added fees, help those most marginalized farmers first form into big, strong organizations.

The biggest problem yet with Fair Trade is its main aim: to fight poverty in farming communities across the world. The empirical evidence for this, on a more than singular case study scale, is practically non-existent. There are studies that show big disproportions in income growth: some people noted 200% increases, while some did not experience any major differences (Schmelzer, 2006). There are no clear answers if Fair Trade reduces poverty system wide and from what perspective. FLO reports offer almost no hints at effectiveness in this regard of the Fair Trade mechanism. The most wasted opportunity was the implementation of surveys in 2015, which were unfortunately not designed to gain and process answers about financial and wellbeing situation of associated members; instead, they provide feedback about the support from the organization. The only consistent data presented by FLO are Fair Trade Premium spending, which does not imply that the allocated money to each category provides an outcome of direct improvement. In 2019, 20% of premium accumulated by small-scale producer organizations was allocated to Human Resources and Administration, 20% to facilities and infrastructure, 18% to payment to members, 10% on agricultural tools and inputs, 6% to implementation of best practices, 3% on farmer business training, 2% to credit and finance services and 2% to training of organizational staff (FLO, 2021d). A year earlier, the data was very similar. It shows that most of the premium is not spent on community and livelihood projects but on daily business maintenance and the financial stability of the organization. A slightly different situation concerns the Workers Organization, as 26% of premium was allocated to education services, 20% to other services, 10% to financial and credit services, 9% investment in housing, 6% healthcare services, and 4% to payment for workers. Premium spending of Worker Organizations is more concentrated on delivering important services to workers and their families, but the amount of generated money is different: 1,478 small producer organizations generated 173.2 million euro in premium, as opposed to 29.3 million euro generated by 321 hired labor organizations. On average, a hired labor organization had 91,277 euro to spend and a small producer organization had 117,185 euro. It shows that the real needs of farmers and workers lie somewhere else, and perhaps the premium model needs to be revamped, so that it can truly respond to the demand and create a more effective, positive impact.

3.4. Sustainability of Fair Trade

The global climate crisis proves that the old model of food production and consumption is not possible to sustain in the long term. The soil degrades, more extreme weather destroys strategic crops, and progressing climate change will soon reduce the number of places where some Fair Trade products can be cultivated. For example, arabica coffee requires very specific conditions to be successfully grown, which are estimated to occur between 20 º N and 25 º S altitudes and ranging

between 700 and 2000 m.a.s.l (Chemura, Mudereri, Yalew and Gornoth, 2021). According to a report from 2021, the area suitable for arabica coffee is being reduced due to climate change, limiting the total yield and enhancing the conditions for pests and diseases. This means that the livelihood of 25 to 30 million coffee farmers around the world becomes endangered, counting in those associated in Fair Trade. In Ethiopia, farmers cultivating coffee branded as specialty are faced with challenges to maintaining the quality of their produce, which leads to losing markets and profits from offering a premium product. If those farmers switch to the cultivation of robusta coffee, which is far less demanding, they face increasingly aggressive competition from international agricultural giants. This puts a burden upon the future of Fair Trade, as 60% of coffee offered by the movement is organic (FLO, 2020) and often falls into the category of specialty coffee. This threat also applies to other products, like cocoa. Raw cocoa production, handled without any modern, ecological standards is very harmful to the environment, and further manufacturing of goods based on cocoa further impacts the environment (Konstantas, Jeswani, Stamford and Azapagic, 2018), but Fair Trade cocoa must be cultivated within organic and sustainable standards.

It must be stated that coffee is mostly imported to developed countries, the European Union being the biggest importer, and United States of America the second (ICO, 2021). The demand for this commodity appears in the richest countries, but rarely in the ones on the same level of those that produce it. This situation raises an important question: is it fair for Fair Trade to put its farmers in a fragile position where their livelihoods depend on delivering an agricultural product that is suited only for the wealthy global consumers, and almost useless for their domestic or regional markets? The Fair Trade model for products like cocoa or coffee only strengthens the dependency of those farmers on western manufacturers and consumers, as they demand a product that has proven to be more and more difficult to produce and deliver, due to the climate crisis. The minimal impact on the local markets is artificially substituted by the premium mechanism, and some social profits can be discovered, but the economic impact on the economies of producer countries still needs to be evaluated. The issue of climate change is tackled by Fair Trade by endorsing the organic cultivation of licensed products, which is supposed to reduce emissions and climate impact of the whole Fair Trade production, but it does not change the fact that the main target of those products are global markets, which further generate climate imprints that cannot be controlled by the organization.

Fair Trade states that it operates according to agroecology policy, which in many points is true, but also in few aspects contradicts it (FAO, 2019). Most importantly, the aim of agroecology is to guarantee the safety of farmers from international markets and entities, and bring them independency when it comes to what and when they need to produce, in consideration of environment and biological diversity (Van de Helde and Holemans, 2019). It also aims to focus more on domestic

markets and its needs. Fair Trade works only with a selected group of agricultural products, and usually requires the farmers to focus their work on one of the products to reach highest possible profits, thus reducing the biodiversity and freedom of operation. The price offered to producers is solely based on direct costs of production (including Fair Trade fees and obligations) and the global market situation, which, as mentioned before, imposes more strict ties with more wealthy countries.

4. Conclusions

After analyzing the aims and methods of implementing Fair Trade principles, it can be concluded that the adopted model operates on solid corporate-like foundations, offering more freedom and profits for farmers in the short term, but in the longer term, incorporating them deeper into the global system, making them more dependent on the situation on global market, with risk minimalization offered by the organization. Many aspects of the organization are not transparent to the public, particularly when it comes to the formal requirements of licensing and the quality assurance realized by the audits. The mechanism in the form of a premium should be the main factor of improving the livelihood of producers and workers, and an incentive to join the ranks of Fair Trade, but instead it looks like it mainly fills the gap of financial liquidity in the businesses.

Taking into consideration the discussed points, the Fair Trade operation model maintains the position of farmers in global value chains, offering them not an ability of substantial and sustainable growth, but a bypass to some of problems they struggle with, like access to markets, low profits from basic production, low competitiveness or poor working standards. By participating in Fair Trade, producers and workers are able to stabilize their terms of trade, as 72% of banana producers reported being able to negotiate terms of trade with buyers, the same being said about 53% of cocoa producers and 64% of coffee producers (FLO, 2021c), but it does not entice them to further strengthen their position in the global supply chain. Also, the costs of participation in Fair Trade, which mainly consist of the aforementioned licensing costs, might be burdensome for the smallest organizations, and might change in time, depending on the size and success of the business.

By looking into the data, two of the three most important Fair Trade products have a stable share in its own export category, but they are still not big enough to create a meaningful force in the global trade system. The share of the rest of the products in the respective categories is negligible, as in the case of sugar cane: 0.0003% of global sugar cane export (OECD, 2021; FLO, 2021d). In the global sense, the Fair Trade market is still a niche.

Fair Trade presents a conservative approach when it comes to climate crisis and its impact on agriculture across the globe. It maintains a low effective, based

on traditional methods, agricultural model based on a monoculture of products that prove more difficult with time to cultivate, due to global climate changes. Striving to increase organic production is not an sufficient answer in contemporary challenges, and does not make Fair Trade fully compatible with modern agricultural policies, like agroecology. The concepts and mechanisms created in the 20th century for Fair Trade, as humanitarian and honest as they might be, are outdated and obsolete in the face of rapid climate changes and all implications related to them. To serve the higher purpose (and most of its aims in full spectrum), Fair Trade would need to rearrange its operation model, mainly the Fair Trade Premium mechanism, the licensing process and the range of products. It also needs to focus more on diversifying production and impacting the local economies by not only increasing the quality of labor and social services, but also by stimulating the local trade market and more advanced manufacturing processes.

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Digital exclusion of elderly citizens: Polish experiences based on the project Adult Social Inclusion in a Digital Environment (ASIDE)

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Abstract

The dynamic development of digital technologies and their widespread use in everyday life, especially by younger generations, forces urgent initiatives to counter the digital exclusion of older people. Adult Social Inclusion in and the Digital Environment (ASIDE) has offered activities to sup-

port inclusive education and digital skills, raising competences for digital social inclusion of adult social educators and adult social volunteers. The aim of the article is to present the experiences of the ASIDE project in the field of digital inclusion of seniors. Research methods typical of this type of study were used: critical analysis of the literature on the subject, analysis of project documents, analysis of published secondary data.

1. Introduction

In the third decade of the 21st century, digitization is of great importance, especially for emerging economies and developing countries. Countries and communities that are unable to digitize fast enough face digital inequalities. The efficient use of information and communication technologies (ICT) is a key factor in economic development, social welfare and effective management (Jamil, 2020; Chang et al., 2014). Digital connectivity remains the epicentre of a country's economic and social progress by connecting people, government and business in real time to achieve sustainable development across sectors of the economy (Strusani, Houngbonon, 2020). However, not all participants in society have access to ICT, which results in the problem of the digital divide (Robinson et al., 2020; Hanafizadeh et al., 2013; Alampay, 2006). It should be noted that the digital divide is not only a matter of the unavailability of ICT, but is also linked to socio-political, economic and cultural factors that affect people's access to ICT or their ability to use it efficiently (Warschauer, 2003; Reisdorf and Grosejl, 2017).

On the other hand, in the last decade, one of the noticeable responses to the problem of digital inequalities has been to support digital inclusion, which is essential to achieving sustainable development. (United Nations Social Development Network, 2019; Ragnedda and Mutsvairo, 2018). Equal access to the Internet and technology is a necessary factor in improving their quality of life, as it offers the possibility of access to useful information and services (Ragnedda and Gladkova, 2020). Hence, digital inclusion requires the adoption of innovation and sustainable infrastructure that can create employment opportunities, support the digital economy and generate income. The European Commission plans to allocate EUR 9.2 billion for the digital development of Europe by 2027 under the new Digital Europe program, which is an increase of approximately 50% compared to the programming period 2014–2020.

The aging of the population is a long-term trend that started in Europe several decades ago (Dąbrowska and Lubowiecki-Vikuk, 2020). This trend is visible in the transformation of the age structure of the population and is reflected in the growing share of the elderly, combined with the decreasing share of the working age population in the total population. The share of the population aged 65 and over is increasing in every European Union (EU) Member State. Low birth rates and longer life expectancy also increase the share of older people (60 and over) in the total population. According to Eurostat data, in 2017, people aged 60 and over

accounted for 25.6% of the total population of the EU. People aged 65 and over represent 19.4% of the total population in the EU. This means that almost every fifth person in the European Union is 65 or older. This makes up a population of almost 100 million people and means that for every person aged 65 or over, there are roughly three people of working age. Even 20 years ago, there were about five people of working age for every person over 65 years of age. Ten years later, the ratio was 1:4, and today it is close to 1:3. The highest percentage of this age group is in Italy, Greece and Germany (22.3%, 21.5%, and 21.2% respectively), and the least of these people live in Ireland (13.5%), while in the candidate countries, the lowest number of people over 65 live in Turkey (8.3%). In Poland, there are 16.5% of such people in the total population, which is below the EU average (Kancelaria Senatu, 2018).

The aim of the article is to present the experiences of the ASIDE project in the field of digital inclusion of seniors. Research methods typical of this type of studies were used: critical analysis of the literature on the subject, analysis of project documents, and analysis of published secondary data.

2. The essence of digital exclusion — review of definitions

The concept of "digital exclusion" refers to the concept of "social exclusion," understood as the lack of access to certain goods necessary for normal functioning in society (Stolarczyk, 2018; Nur Akarçay et. al., 2021; Ochoa-Daderska et al., 2021). It was shaped in the 1970s as a reflection of the multidimensionality of social life. According to Panek and Czapliński (2013), social exclusion means that a given individual or a social group being members of a community (most often it is a community of state citizens) cannot fully participate in important areas of the community's life. It is often added that this limitation does not result from the beliefs of those who are excluded, but from deficits completely or largely independent of the excluded. Exclusion may include work, consumption, participation in culture, community life and politics.

Digital exclusion, although synonymous with social exclusion in terms of its consequences, is nevertheless a more complex phenomenon that integrates many different factors determining the inclusion in the group of people at risk. It takes into account both physical access to the Internet as well as a whole range of psychological premises. These include: access to infrastructure, hardware and software, but also the quality of this hardware. The second is psychological (subjective) reasons, such as concerns about using the Internet, motivation, skills and their level (Sawicka, 2015).

The scope of digital exclusion — as the phenomenon of the inability to use modern technology products at even a basic level — is difficult to objectively

assess, but it is certainly different both between societies of different countries and within them. In the group of the former Eastern bloc countries which underwent a profound political, economic, social and technological transformation after 1989, the indicators differ relatively slightly (Susło, Paplicki and Drobnik, 2019).

The widespread use of modern technologies (computers, smartphones, Internet, mobile banking, modern office equipment and household appliances, etc.) may constitute a barrier to the active participation of older people in social and public life. According to a study by the Central Statistical Office (GUS, 2018), 60% of people aged 65 and up have never used the Internet. Additionally, as many as 82% of those who did not use the network of seniors did not feel the need to use the network, and 71% declared a lack of skills as an obstacle. Only 9% did not use the Internet for economic reasons. On the other hand, according to Eurostat surveys, only every fourth elderly person (26%) uses the Internet at least once a week, while in the European Union, it is almost half (48%). The digital exclusion of older people is even more visible among people aged 65–74, as only 10% of people in this age group surf on social networks (Tracz-Dral, 2019).

GUS data for 2019 indicate that 1,360,300 people used a computer in Poland. people aged 65–74, which accounted for 34.1% of the total number of people in this age group (an increase by 2.4 percentage points compared to 2018). The percentage of computer users was higher among men (38.3%) than among women (30.8%). The Internet was used by 1,477,200 people aged 65–74, i.e. 37.0% of the total number of people in this age group (40.7% men and 34.2% women).

Taking into account the dynamic development of ICT and its widespread application in everyday life, especially by younger generations (e.g. generation Z), it is necessary to take measures to counteract the digital exclusion of older people. The cited data clearly show the important role of training and courses that strengthen the competences of older people in the use of new technologies. Organized workshops and classes help the elderly to consolidate their acquired knowledge, to get used to technological innovations, but above all to improve everyday activities over time, such as using social media, shopping via the Internet, paying bills or settling official matters. This, in turn, means that the elderly remain independent, and independent for longer, and have no fear of the constantly changing reality (uchwała nr 167 Rady Ministrów z dnia 16 listopada 2020 roku).

3. Counteracting the digital exclusion of older people — experiences from the ASIDE project — in the context of research methodology

Among the systemic initiatives undertaken at the European and national levels, the experience from the project "Strategic Partnerships for Adult Education (ASIDE) — Cooperation for innovation and exchange of good practices" no. 2019-1-PL01-

KA204-065689 was analysed, duration of the project: 1.09.2019–31.08.2021 (Ochoa Siguencia et al., 2020b; Sanchez Garcia, 2020).

The ASIDE project aimed to support inclusive education and digital skills, increasing competences in the field of digital social inclusion of adults with the participation of educators and volunteers. The project dealt with social inclusion by defining a portfolio of basic digital competences that are necessary for the development of Information and Communication Technology based social inclusion initiatives/services.

The aims of the project were:

— supporting social integration by improving the competences of social educators and social volunteers involved in the design / implementation of initiatives / projects for social inclusion;

— strengthening the support, participation and educational activities of social educators and social volunteers involved in inclusive education and digital social practices;

— enhancing social inclusion through digital innovation practices, innovative ICT-based methods and pedagogy, as well as online participation models, where appropriate.

The project partners were international supply-side entities: Fundacja Instytut Badań i Innowacji w Edukacji (Leader — Poland), Saricam Halk Egitimi Merkezi (Turkey), Fundación Universitat Jaume I — Empresa (Spain), and ITC International TEFL Certificate s.r.o. (Czech Republic).

Adult education in the field of ICT and new technologies brings with it a number of challenges, especially important for seniors. For a broader context of the selection of the age group of seniors, it is worth taking into account, apart from age, additional socio-economic elements, such as place of residence, education or purchasing power, which may affect the real needs of this group. It is worth paying attention to, if possible, among others on psychographic aspects to build a more complete picture of a senior based on the way of spending free time, interests, personality type or even more detailed aspects, such as attitude to technical innovations. Thanks to these elements, it is possible to distinguish subgroups more precisely and to identify the needs of seniors more precisely in order to better match both the educational offer and the strategy of using the opportunities offered by the modern market of products and services. Efficiency in the search for effective solutions increases thanks to participatory design (co-design). It is especially important when designing services and goods based on new technologies aimed at seniors.

The second important issue is the intergenerational aspect and the related breaking of intergroup and generational stereotypes. In this context, it is also important to remember about the other side of the interaction, namely young people. They range from volunteers specializing in ICT to entrepreneurs, programmers and designers creating digital solutions. They often see the potential of the sil-

ver economy, but are also often victims of stereotypical thinking about seniors by offering them services that they believe seniors need. For example, in one research activity, there was a group of young developers and designers who had difficulty seeing more than just the end customer in the senior group; these teams prepared banal solutions based on stereotypical thinking about seniors and their needs (Ochoa Daderska et al., 2021).

On the other hand, some young teams have managed to break through and apply an open-minded approach to see the elderly as a potential partner, which allows them to better penetrate into the essence of the real problems faced by the target group.

Thanks to joint action, not only were intergroup stereotypes broken, but real needs were discovered and better solutions were proposed. An intergenerational participatory approach enables direct interaction between solution developers and potential recipients, providing benefits to both parties (Marzano and Ochoa Siguencia, 2018). Thanks to an unconventional approach, seniors have completely new possibilities of contact with the latest technologies, which go far beyond the standard forms of adult education dominating in relation to seniors (Gródek-Szostak, et al., 2020; Gródek-Szostak et al., 2019). For example, seniors have repeatedly participated in tasks related to the co-creation of new ICT solutions, from developing course content, through co-creating mobile applications with young programmers, to using the latest trends, such as virtual and augmented reality (VR, AR) and voice assistants (VA).

Summing up, the activity of Living Lab is an example of unconventional educational activities for seniors, based on an active participatory approach to new technologies and the silver economy. It is worth treating seniors not only as recipients, but also potential partners who can contribute to solving their own problems in the area of digitization. On the other hand, such an approach requires the inclusion of young/adult entrepreneurs, designers and programmers and even volunteers, as young enthusiasts of new technologies who also need support to make wider use of the potential of seniors. Such a comprehensive approach can effectively break intergroup stereotypes by referring to the specific desires, needs and aspirations that this target group has, as well as other age groups.

4. Conclusion

The digitized world is increasingly dominating our lives, and the SARS-CoV-19 pandemic has forced the intensity of the use of technology in everyday life. A wide range of activities, including education, shopping, navigation, health, administration, banking, entertainment, music, movies, photography, social media are performed in the large "digital room." How many different kinds of things we do through digital sources show how dominant this technology is in our lives.

In the future, the world will focus on digital technology. Though they dominated the world, digital technologies developed faster than any innovation in human history. Technologies have the potential to be an excellent equalizer by improving connectivity, financial inclusion, access to education, healthcare and public services. Services available without time or site limitations (and even devices) play an important role for all populations around the world.

Digitally-enabled people become socially enabled. Not just businesses but governments also provide users with digital opportunities, which have certain benefits in terms of the human power used, documents consumed and speed of services.

The rapid digitalization of the world has enabled the development of new platforms for adult learners to use. Various applications offer people opportunities to create and share digital materials. These tools have become an inseparable part of our lives and required an advanced mastery of them in the world of employment. Therefore, a lack of knowledge about digital tools and digital platforms may put adult learners in a difficult position in terms of social inclusion. While the digital sources available have the potential to increase social inclusion, lack of access to them, lack of knowledge about them, or lack of motivation to learn them could lead to social exclusion. Reduced or partial digital literacy could thus have many negative consequences in adult people's psychological, social, and educational life. The digital sources implemented during the ASIDE two years' project should therefore favour interaction, participation, and management of learning content on the internet.

Today, Information and Communication Technologies dominate our lives through the services they provide through various mobile devices, such as smartphones, tablets, laptops, etc. The access to information and services anytime, anywhere also requires people from all ages to use them for various purposes including health information, finance, shopping, navigation, etc. Although adult learners show interest in the technologies that make their life easier, it is also important to note that their digital skills are minimal. They were not exposed to the current technological breakthrough, and the differences in the use of digital tools have caused an increasing gap between the younger and older adult groups. This digital divide could be more significant in people with some specific demographic and socioeconomic characteristics, which makes them "digitally excluded." Therefore, increasing older adults' digital competences is of great importance for social inclusion.

Staff working with adults do not need a university degree and do not have sufficient knowledge and experience in this field. This situation negatively affects the effective implementation of adult education and causes a decrease in quality. The lack of practices and trainings that train trainers in the field of adult education is the most important obstacle in the development of adult education. That is why the outputs developed within the scope of the ASIDE Project can be used as a guide for the professionals working in adult education in terms of social inclusion in the digital environment.

However, being socially and digitally inclusive requires people to have certain digital skills. While these skills are easy to acquire for younger age groups, it is more difficult than expected for older age groups and disadvantaged groups. EU communities face the problem of the digital divide. Certain factors, such as advanced age, poverty, lack of motivation, low education, etc. create a digital divide and thus exclude certain groups. Therefore, education centres and governments should strive to help disadvantaged people to be digitally included through various projects or other educational opportunities. Countries should learn from each other's best practices and adapt them to their unique circumstances. Digitally-excluded populations should have greater opportunities, motivation and new benefits from digital inclusion. Defining the directions of further research, the authors will take up the issues of the construction and development of the silver economy, with particular emphasis on meeting digital needs.

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Patent law and innovations of the Polish economy: Analysis of the current situation and recommendations for the future

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Abstract

One of the key elements of modern economies is their innovation, measured in many ways. The measures of innovation most often include R&D expenditure (expenditure side) and patents (effects side). Undoubtedly, the level of expenditure on research activities is important, but the true picture of an innovative economy is provided by the side of the achieved results, i.e. patents. The purpose of the article is to analyze the impact of patent law (organizational, financial, and legal conditions, and thus the number of filed and patented solutions) on the level of innovativeness on the example of the Polish economy. The analysis was based on a review of domestic and foreign literature and legal acts on patent protection at the national, regional (European) and international levels on the one hand, and innovation in Poland and European countries on the other. To assess the level of innovativeness data from the Global Innovation Index, the Central Statistical Office (GUS) and the European Innovation Scoreboard were used. Comparison of these data made it possible to articulate several conclusions. First, patent law is considered too complex and unclear for research applicants. Moreover, the awareness of patent applicants in Poland is still quite low, especially if the entity is a small enterprise. An undoubted barriers to the patent activity are also the costs that must be borne during

the entire patent procedure and the waiting time for the procedure to be completed. Future research should focus on surveying businesses in Poland about their views on patent law and possible changes to improve its operation, allowing for a more detailed analysis of the issue.

Introduction

The problem of innovation is one of the key issues discussed in sociological research, as well as connected to the Polish economy. On the one hand, the analysis of said issue involves the effects of innovative activity performed by economic entities in the form of innovative solutions (product, process, or organizational) and, on the other hand, the potential to absorb innovation from external entities.

It is worth noting that keeping a competitive advantage necessitates implementing innovations. This, in turn, means the necessity of scientific and development research, which brings various technical and immaterial solutions as an effect. Inventors, however, need to consider not only the ways of creating new solutions but also their protection against the competition (patent).

The following article focuses on the issue of patented innovation which quantity is one of the measures of the innovativeness of economies (Funk, 2018). Patent laws (organizational, financial, and legal conditions) directly affect the number of patented solutions, which then affects the level of innovativeness.

1. Theoretical framework of the research

Protection of inventions, designs and trademarks, i.e. broadly understood patent law, is part of industrial property law. The first legal acts on this subject appeared in Poland as early as 1918 (Dekret tymczasowy o Urzędzie Patentowym z dnia 13 grudnia 1918 roku, Dz.P.P.P. Nr 21, poz. 66), and then they were repeatedly modified and added to (Dolata, 2018). Currently, issues related to the legal protection of inventions and utility models are regulated by the Act of June 30, 2000. Industrial property law (Dz.U. z 2017 r., poz. 776 ze zm.) and the ordinance of the Prime Minister of September 17, 2001 on filing and examination of applications for inventions and utility models (Dz.U. z 2001 r. Nr 102, poz. 1119, z 2005 r. Nr 109, poz. 910 z 2015 r., poz. 366 oraz z 2016 r. poz. 1840). Patent law in Poland and other countries is very extensive, and in many cases, it effectively protects intellectual property. However, practice shows that in many cases, this protection is difficult to enforce. This situation has occurred since the beginning of the protection in the form of patents (Kaczmarska, Gierulski, Kwapisz and Michta, 2018).

In the literature on the subject, many authors emphasize the importance of patent protection of emerging innovations and the legal conditions of this process (Dereń, 2014; Mazu, 2016; Traple, 2017; Michalak, 2016). However, the effective

use of the tools of the patent system seems to be also crucial from the perspective of the course of the innovation process (development, implementation, and diffusion of innovation). These include the following tools: patent information (examination of, among others, competition and the state of technology), legal (procedures and scope of obtained protection), patent strategies and policies, assessment (e.g. risk, economic, entity's innovation, the purposefulness of protection) (Kacprzak, 2018).

Contemporary patent systems can be divided according to their protective power, i.e. systems with strong and weak patent protection. The first is used by countries which want to increase breakthrough innovation and provide strong incentives to create it. It is used by the so-called Invention Leaders. It is possible to determine the value of the protection rights, which favors the possibility of opposition by third parties to the proposed invention. In turn, the weak protection system is aimed at stimulating the spread and imitation of inventions already made by limiting fees to the benefit of the inventor only to people who consciously use this solution and a narrow scope of protection (usually concerning individual elements of the entire design solution). Patent protection may also hamper further innovation, especially when it limits access to essential knowledge, as may be the case in emerging technological areas when innovation has a marked cumulative character and patents protect foundational inventions (OECD, 2004). It is used in underdeveloped countries (Niklewicz-Pijaczyńska and Wachowska, 2012, 23–24).

2. Research methodology

The methodology of the study of the research problem was based on a broad review of domestic and foreign literature on patent protection at the national, regional (European) and international levels on the one hand, and innovation in Poland and European countries on the other. Analyses of patent protection were based mainly on a review of domestic and foreign literature and legal acts. In addition, the part of the study presented in the paper was carried out in the form of secondary research, based on available patent information databases, in particular:

— databases of the Patent Office of the Republic of Poland;
— databases of the European Patent Office (EPO)
— databases of the World Intellectual Property Organization (WIPO).

On this basis, three examples of patent procedure at different levels of territorial scope were presented, concerning the comparison of time and cost of the whole procedure in three specific situations: narrow territorial scope (national procedure), moderate territorial scope (EPO regional procedure) and broad territorial scope (PCT international procedure). To assess the level of innovativeness data from the Global Innovation Index, the Central Statistical Office (GUS) and the European Innovation Scoreboard were used. On the basis of the cited

data, an attempt was made to demonstrate a cause-and-effect relationship between the studied phenomena.

3. The innovativeness of the Polish economy

The innovativeness of organizations is the ability to absorb, i.e. constantly seek, implement and disseminate innovations. The innovativeness of the economy is defined as "a development process in which the ability to create changes results from previously accumulated knowledge and experience" (Weresa, 2000). The innovativeness of the economy is an effect of the innovative activity. It is regarded as one of the most important qualities of an enterprise, having a key impact on its competitiveness and market status. What is important is the application of the created ideas and the dynamics of changes introduced in the process of commercialization of innovations (Barańska-Fischer and Blażlak, 2016).

Among the indicators used to measure the innovativeness of economies, it is necessary to distinguish indirect indicators based on the amount of expenditure and effects related to R&D activity (e.g. patents, technological intensity) and direct innovation indicators (expenditure on R&D) (Archibugi and Pianta, 1996).

The next important indicator is the Global Innovation Index, published by the Cornell University in collaboration with, among others, the World Intellectual Property Organization (WIPO), a specialized agency of the United Nations, calculated as the average of the factors describing the environment suitable to innovation and the results measuring implementation in terms of innovation. On the one hand, it takes into account: institutions, human capital and research, infrastructure, market differentiation, and the diversification of the enterprise sector. On the other hand, it examines the effects of innovative activity: creating new knowledge and creative results (Rószkiewicz, 2015). In 2020, Poland took the 38th position among 129 countries (after holding the 39th position in the previous year), thanks to high scores in the following areas: students' scores in the PISA test (9th position), exports of creative goods (12) or trade, competitiveness and market size (22). On the other hand, the following was reported as below the average: ease of setting up a company (99th position) cooperation between universities and business (87), or gross accumulation as % of GDP (89) (Dutta, Lanvin and Wunsch-Vincent, 2020).

In the context of this article, attention should be directed to the values of the index elements relating to patent activity. The categories related to the creation, influence and diffusion of knowledge received the following values: 35, 31 and 31, respectively. They include patents by origin (27), citation (25), and utility models (27). The number of scientific publications with Polish affiliations published in 2019 and recorded in the interdisciplinary Scopus database was 50.3 thousand, which places Poland in 17th place in the ranking of countries, i.e. in the same position as in the previous year. In the European Union, in 2019, there were 0.54 publications per 1 researcher post. In Poland, this ratio was 0.42 and was the same as

in the previous year. In Germany, where the expenditure on research and development per researcher is four times higher than in Poland, the indicator decreased and amounted to 0.41. Of the 50.3 thousand publications affiliated with Polish authors published in 2019, there were 34.7 thousand. citations, of which 30.9% were self-citations. The number of quotations per publication for Poland was 0.7, which is slightly above the rate for the entire Eastern Europe (GUS, 2021).

One of the main indicators used in measuring the innovativeness of the economies in the European Union is the European Innovation Scoreboard. Ultimately, the Summary Innovation Index divides the Member States into four groups: Innovation Leaders, Strong Innovators, Moderate Innovators, and Modest Innovators.

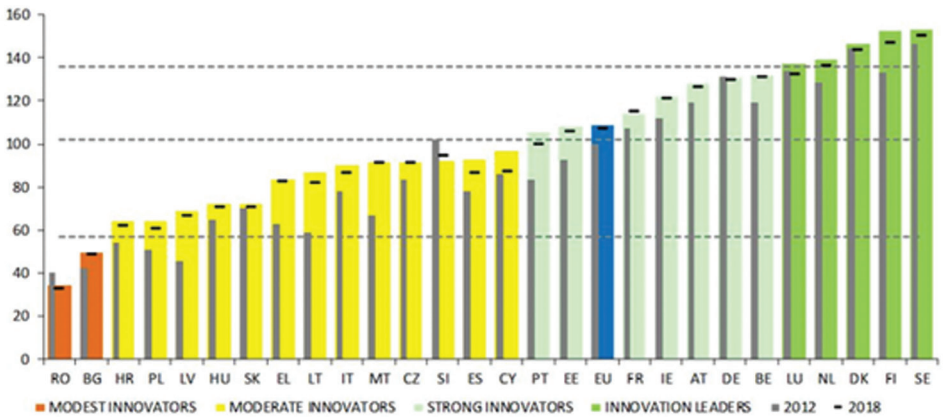


Figure 1. Results of EU Member States in terms of innovation systems based on the European Innovation Scoreboard 2019

Source: European Innovation Scoreboard 2020, https://ec.europa.eu/commission/presscorner/detail/en/QANDA_20_1150 (accessed 31.05.2021). The figure shows the performance of the Member States in 2019 compared to the performance of the EU in 2012. The small horizontal dashes represent the country levels for 2018. The narrow dark bars show the performance of the Member States in 2012 compared to the EU performance in 2012. The dashed lines show the threshold values between the groups in 2019. The same measurement method is used for all years.

The results in 2019 are presented in Figure 1, which shows that Poland (next to Croatia, Cyprus, the Czech Republic, Greece, Hungary, Italy, Lithuania, Latvia, Malta, Slovakia, Slovenia, and Spain) is below the European Union average, and is ranked among Moderate Innovators. Innovation Leaders include Luxembourg, Denmark, Finland, the Netherlands, and Sweden, whose innovation performance is well above the EU average. In turn, only countries such as Bulgaria and Romania (Modest Innovators) recorded worse results than Poland, as well as Hungary in the group of Moderate Innovators.

Poland is one of the countries with a relatively medium technological level. Almost the entire Polish industry uses foreign scientific achievements. No Polish invention, even an uncomplicated one, has been recognized as a world patent. In addition, very few inventions from Poland obtain international protection. It often

happens that foreign entities buy patents in Poland and provide them with appropriate protection on their own markets, which makes competition for domestic entities even more difficult.

Therefore, it should be considered what causes Polish entities to obtain so few patents, especially those of a strategic nature on the international and regional arena since it is such an important factor in the innovation of the economy.

4. Patent law in Poland

A patent is a time-limited right to the exclusive use of a technical solution (invention) for commercial or professional purposes in the territory of the state that granted the patent. This right belongs to the owner of the technical solution, i.e. the entity or natural person, applying to the patent office with an appropriate application. A patent in Poland is valid for 20 years from the date of filing the invention, provided that the required fees are paid. After this period, if the owner does not extend the protection period, the right expires and the invention is transferred to the public domain, where there is no restriction of use. The utility model is also the right to the exclusive use of the technical solution, but it only applies to the shape, structure, and combination of objects ensuring a complete form. The term of protection law for utility models in Poland is 10 years. Patents and utility models protected in Poland are granted by the Patent Office of the Republic of Poland. They may also be granted by the European Patent Office after indicating Poland as the area of validity in the application form (https://uprp.gov.pl; Pyrża, Tadeusiak, Adelt, Jakubaszek and Piskorska, 2006).

The invention must meet the so-called patentability criteria, which include novelty (the solution cannot be a part of the state of the art), inventive step, and the ability to be used industrially (Du Vall, 2008; Adamczak and Gędłek, 2012). Confirmation of the fulfillment of the above-mentioned criteria is obtainable by conducting appropriate tests, which are carried out as part of the procedures for granting patent protection in individual countries and international patent organizations (Kacprzak and Kotarba, 2018).

It should be noted that under the Act, inventions are not (Pyrża, 2005; Pyrża, 2008):

— scientific discoveries, theories and scientific methods,
— products of purely aesthetic nature,
— programs for digital machines,
— products that cannot be used in the light of generally accepted and recognized principles of science,
— plans, rules and methods for intellectual or business activities and games,
— presentation of information,
— solutions contrary to public order,
— varieties of plants and animals,
— Methods of treating humans and animals by surgical or therapeutic means.

The patent procedure can be initiated by the person who is the inventor, or by the employer, providing the invention was created as a result of an employment relationship or other civil law contract.

There are three possible patent procedures in Poland (Pawłowski, 2019):

1. Domestic procedure — applying for a patent in the country.
2. Regional procedure — procedure conducted by the patent office granting the patent based on an agreement between many countries. For this article, this is the European Patent Office (EPO). After a patent is granted in one office, only validation in other selected countries is required.
3. International procedure (PCT) — the application is filed within 12 months of the first application for the invention. As a result, an international report which gives information on the possibility of obtaining a patent is issued. Subsequently, national or regional notifications are made.

However, it should be remembered that the obtained patent is valid only in the territory of the country in which it was applied for, under the territorial principle (Zajączkowski, 2003). Therefore, each inventor must decide in which countries to apply for patent protection for their own innovation. Undoubtedly, an important criterion for this decision is the cost that must be increased in connection with obtaining a patent.

Importantly, however, not only the number of patents is crucial from the point of view of increasing competition of both entities and the economy. Their quality and range are also important. The most innovative countries/entities have patents that are recognized all over the world and filed through an international or at least regional procedure. In Poland, this situation is the opposite (Figure 2).

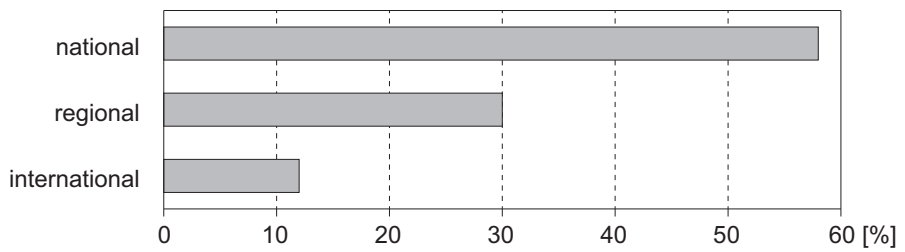


Figure 2. Number of the national, regional and international applications of inventions in 2019

Source: own study based on data from the Patent Office of the Republic of Poland, https://uprp.gov.pl/sites/default/files/inline-files/Raport%20roczny%202019_1.pdf (accessed 31.05.2021).

Domestic patent applications dominate in Poland (58%). The international nature of patents accounts for just over 12% of all filed inventions. It is a small percentage of all introduced procedures, which means that there are few Polish solutions in the world.

The nature and quality of the obtained patents is another important issue. Nowadays, undoubtedly breakthrough solutions are usually the result of the cooperation of various entities within the R&D framework, which results from the increased role of open innovations. This means the transition from a closed (linear) model to

an open (nonlinear) model. Innovative activity in the linear model is based mainly on the potential of the organization (research and development activity, employees, management staff) (Roussel, Saad and Erickson, 1991). On the other hand, open innovations are based on the cooperation of entities that can use their own resources, as well as external resources of other entities (Chesbrough, 2003, 15).

However, such solutions also have some disadvantages. Entities that decide to operate in the R&D area as part of open innovation, i.e. by starting cooperation with other entities, are much more likely to be exposed to uncontrolled disclosure of a patent secret or infringement of intellectual property rights (Ritala, Olander, Michailova and Husted, 2015).

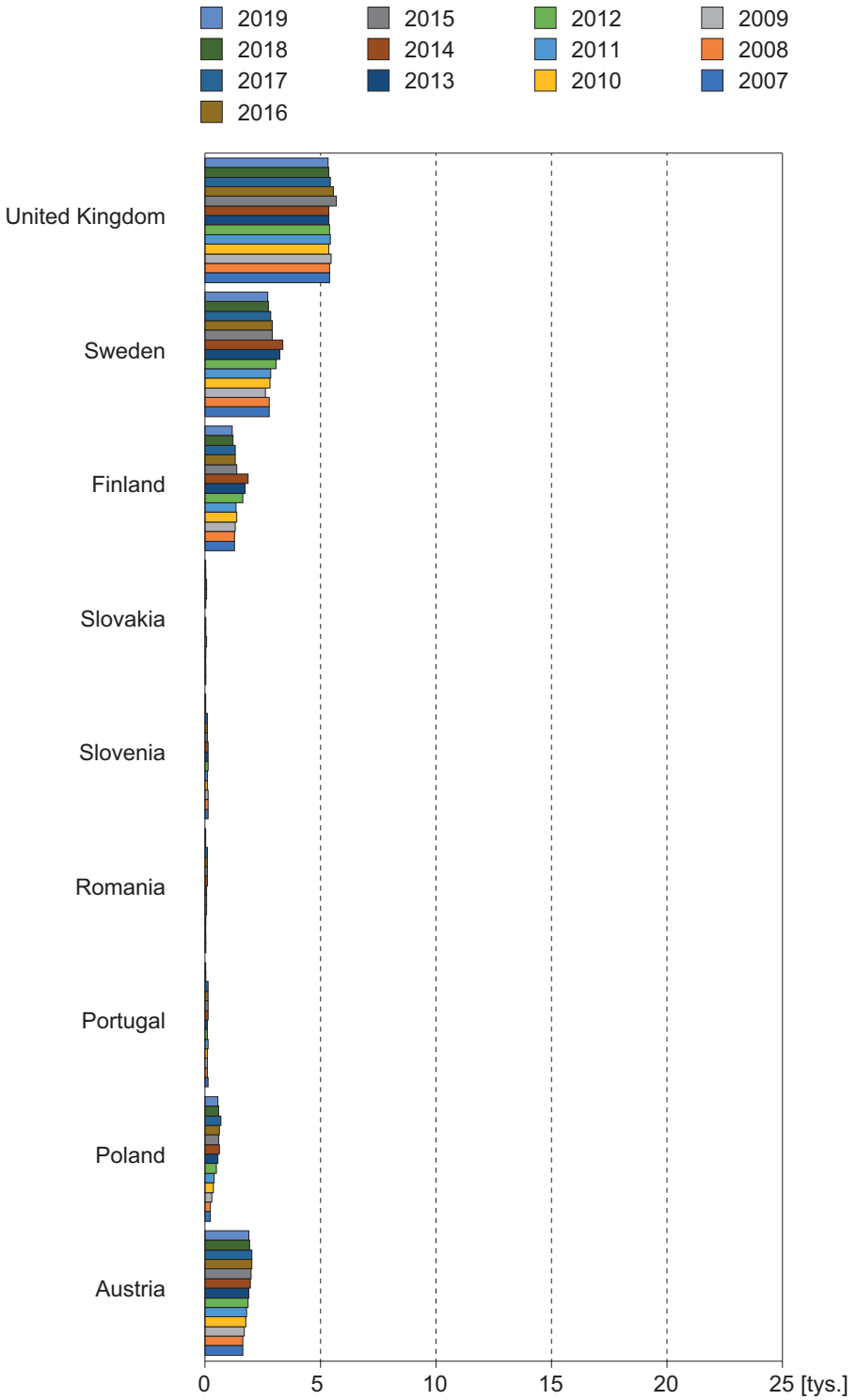
Moreover, because of cooperation in the open innovation system, imitative solutions appear much more often. A breakthrough solution is usually created within one company/entity and most often they are protected by a given organization as the culmination of the innovation process and the previously contributed effort and risk (Hobday, 2005).

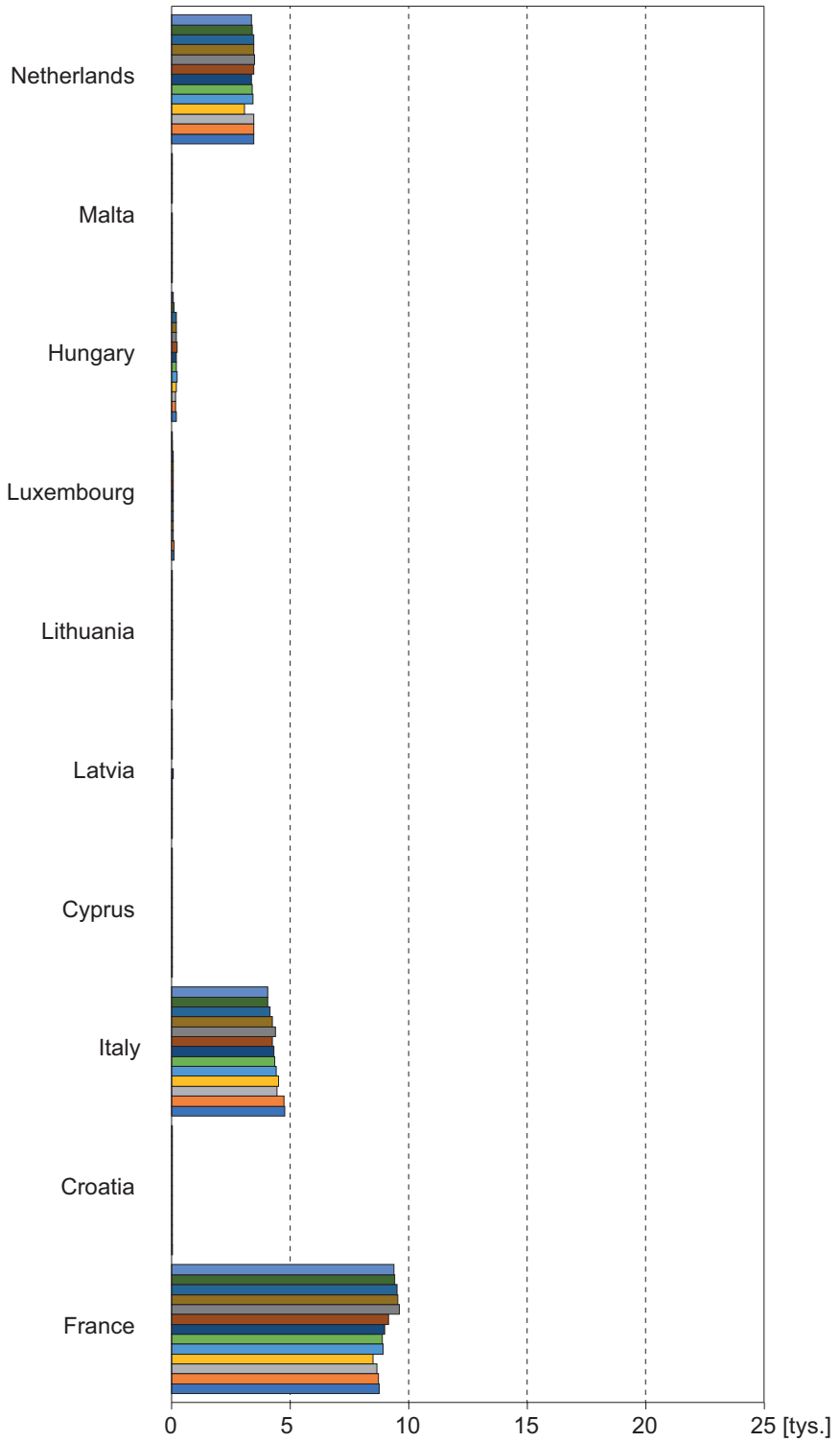
The transition from closed to open models innovation processes is characteristic of modern economies. However, despite the many benefits resulting from such activities, it should be emphasized that there is no high correlation between the cooperation of entities in the field of R&D and the emergence of new solutions.

5. Analysis of research results on patent activity in Poland

The analysis of the outlined research problem was based, on the one hand, on showing the level of innovativeness of the Polish economy on the basis of selected innovation indicators. These results show that Poland does not belong to the leaders in innovativeness, both in the world and in Europe. Within the framework of the mentioned indicators special attention was paid to patent activity (filing and obtaining patents) of Polish entities, which does not seem to be sufficient. In the authors' opinion, the low patent activity of Polish enterprises has a negative impact on the level of innovativeness of the economy. On the other hand, patent law in Poland and the differences between the solutions applied to the national, European and international patenting process (regulations, costs, duration) have been analysed. This research has led to a number of conclusions concerning the formulation of the most significant problems in this area, as well as an attempt to identify solutions, the implementation of which will contribute to an increase in the number of patents, and thus also the innovativeness of the economy.

The patent activity of entities results mainly from the undertaken research and development activity. The intended effects of these activities are new solutions and inventions. However, when analyzing the situation of Poland in terms of the patents submitted, it is clearly noticeable that the results are much worse when compared to many other European countries (Figure 3).





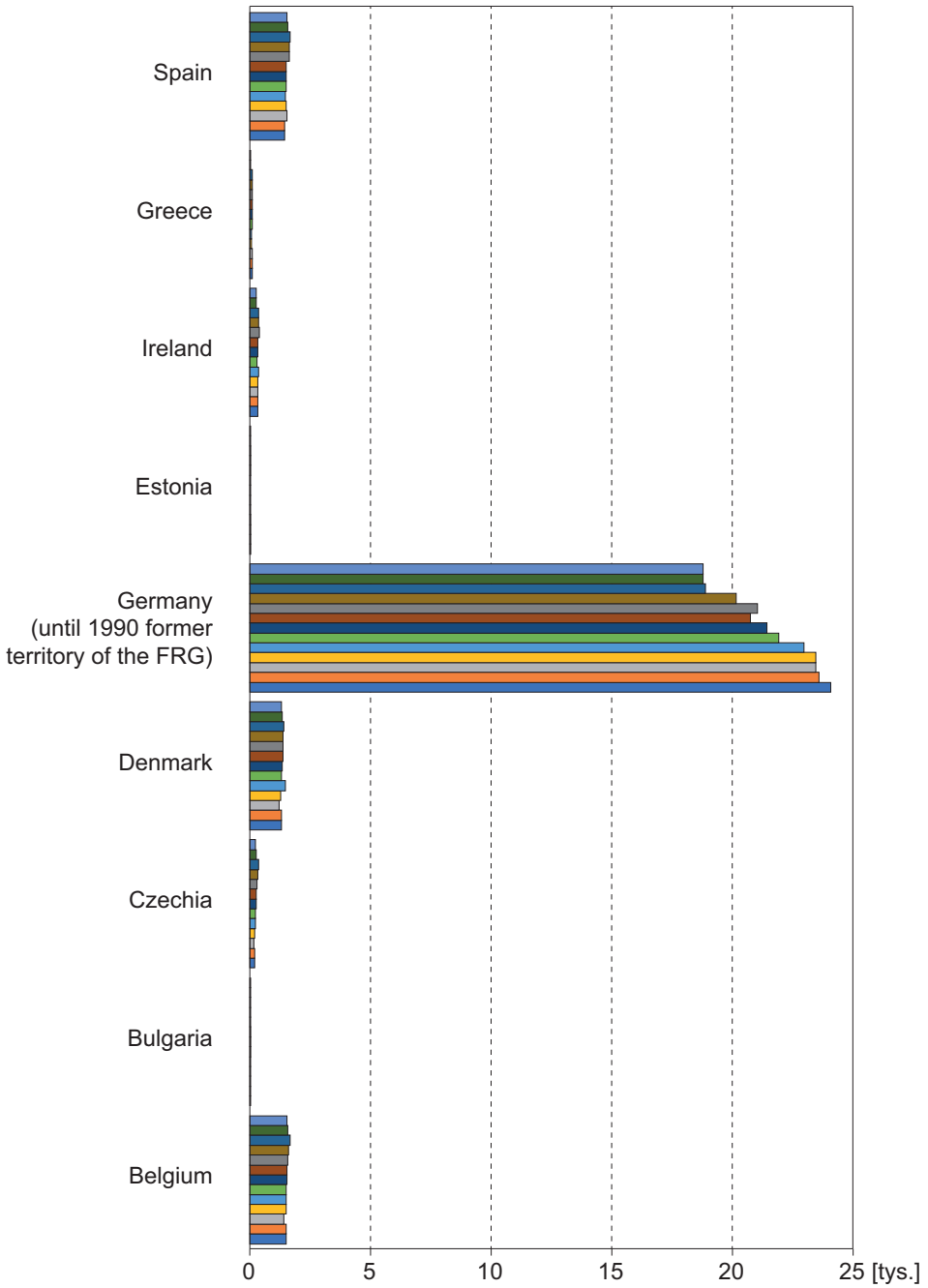


Figure 3. Patent applications of individual European countries to the EPO in the years 2007–2019

Source: own study based on Eurostat data, https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=pat_ep_rtec&lang=en (accessed 31.05.2021).

In terms of the number of patent applications, Poland ranks in the second half of European countries. This is due to several fundamental issues. First of all, patent applications are usually filed by large concerns, of which there are relatively few in Poland, and enterprises from the SME sector are usually not interested in patent protection for their inventions. This is mainly due to a lack of awareness of the importance of protecting one's own property and little knowledge of the rules, procedures and benefits of protecting intellectual property. Unfortunately, both national and international procedures are quite complicated. The owner of the invention may have a problem with the entire patent procedure, therefore they need professional support which is quite expensive. And taking into account other costs (administrative, official, etc.), the entire patent procedure becomes very expensive, and smaller entrepreneurs usually do not have adequate capital (Turczak, 2010).

In addition, owners of inventions are also discouraged by the length of administrative procedures, relatively high costs of extending protection and significant court costs related to the enforcement of their rights. The low number of patents is also affected by the limitations resulting from the existing legal norms. Enterprises from the IT sector do not have the possibility of patent protection for software in Poland, because national law makes it impossible to obtain such a patent, which is possible in other Western countries, e.g. in the United States.

The situation in Poland in terms of the number of patents is disadvantageous. Annually, only a few hundred applications are submitted to the European Patent Office. In 2019, there were less than 700 applications, as in previous years, in 2018 — 627, in 2017 — 580, in 2016 — 600 (UPRP, 2019). A growing tendency is noticeable, but compared to the EU average, in Poland, these numbers are still much lower. As it turns out, the problem is not the long waiting time for a patent in Poland, as this time is similar to the EU average, which is approximately 3–4 years (average: 39 months).

After all, entrepreneurs and scientists often mention long waiting times as one of the reasons for abandoning such a process. However, this is not the only problem for inventors. The current patent law for most inventors is quite complicated and unclear. Inventors do not know what can and even needs to be patented. Sometimes a scientist sells their invention abroad in return for seemingly adequate price. However, entities using a given solution resell said patent (technology) to Polish entrepreneurs for much higher amounts, thus profiting from it. This is due to the fact that frequently, a scientist/inventor is not aware of the market value of their invention.

In addition, patent procedures are often so unclear and complicated that it requires the help of a specialized professional, whose service is also very expensive. To illustrate, in detail, what comes along with the entire patent procedure at different levels of territorial scope, a comparison of the time and the cost of the entire procedure covering the invention patent protection in three specific situations is presented below.

1. Narrow territorial scope (national procedure) — initiation of the patent process in Poland, followed by patent application in Germany and the United States.
2. Moderate territorial scope (EPO regional procedure) — starting the patent process with a European application (Poland, Germany, France, Great Britain), and then the patent application in the United States.
3. Wide territorial scope (international PCT procedure) — starting the patent process in Poland, followed by patent application in several European countries (Poland, Denmark, France, Great Britain, Italy, the Netherlands and Spain) as well as in the United States, Japan, China and Russia.

Table 1 shows the time and the cost of the entire patent procedure in the case of the national procedure (first case) extended to the application of the invention in Germany and the United States.

Table 1. Time and cost of patent procedure when the invention is filed in Poland, Germany and the United States

Date	Step	Description	Cost
1.01.2019	invention	discovery of the invention by scientists	
1.02.2019	patentability analysis	providing the patent attorney with a preliminary description of the invention	approx. PLN 3,000
2.05.2019	submitting the invention	filing a patent application with the Polish patent office	approx. PLN 5,500
7.10.2019	report	patent office report challenging the patentability of the invention	
5.01.2020	addressing the allegations	making the necessary corrections, developing an argument in favor of the invention (cooperation of scientists and a patent attorney)	approx. PLN 2,000
2.05.2020	national patent application in Germany and the United States	the patent application must be made within 12 months of the first filing in the country	approx. EUR 1,900 In Germany USD 3,800 in the US
28.07.2021	report	report of the United States Patent Office challenging the patentability of the invention	
20.08.2021	addressing the allegations	making the necessary corrections, developing an argument in favor of the invention (cooperation of scientists and a patent attorney)	approx. USD 2,000
10.12.2021	decision to grant a patent	the issuance of a decision by the patent office in the United States to grant the patent	approx. USD 1,500 (protection for approx. 3 years)

13.03.2022	notification of obstacles by the Polish Patent Office	notice based on documents obtained by the United States Patent Office	
4.05.2021	addressing the allegations	developing arguments against the allegations	approx. PLN 2,000
29.08.2021	decision to grant a patent	decision on granting the patent by the patent office in Poland	approx. PLN 800 (protection for approx. 4 years)
29.09.2021	application for examination in Germany	obtaining patents in Poland and the United States gives a good chance of obtaining a patent in Germany without major problems, so an application is submitted with the correction of reservations to the version in which the patent was granted in previous countries	approx. EUR 1,150
31.03.2023	decision to grant a patent	decision by the patent office in Germany granting the patent	approx. EUR 400

* the amounts of fees are estimated values, their amount is influenced by many factors, e.g. the level of complexity of the invention, experience and knowledge of the attorney
* after obtaining a patent, fees are also increased in subsequent years (in Poland and Germany every year, in the United States every 4 years)
* the adopted dates are estimated

Source: own study.

The patent procedure shown above usually takes an estimated 4–5 years. In the first year, the applicant has to pay approximately EUR 2,000. In the following year, this cost increases significantly to approximately EUR 5,800. In the third year of the patent procedure, the cost is around EUR 3,100. In the following period, the cost was around EUR 1,700, and in the last year, it was EUR 500. The total cost of the procedure in the analyzed example was approximately EUR 13,100.

Table 2 presents the time and cost of the patent procedure with a moderate territorial scope (EPO regional procedure), starting the patent process with a European application (Poland, Germany, France, Great Britain), and then the patent application in the United States (the second case).

Table 2. Time and cost of patent procedure when an invention is applied for at the regional level

Date	Step	Description	Cost
1.01.2019	invention	discovery of the invention by scientists	
1.02.2019	patentability analysis	providing the patent attorney with a preliminary description of the invention	approx. PLN 3,000

2.05.2019	submitting the invention	filing a patent application with the Polish patent office	approx. EUR 3,920
7.10.2019	report	patent office report challenging the patentability of the invention	
5.01.2020	addressing the allegations	making the necessary corrections, developing an argument in favor of the invention (cooperation of scientists and a patent attorney)	approx. PLN 2,000
2.05.2020	national patent application in the United States	the patent application must be made within 12 months of the first filing in the country	approx. USD 3,300
2.05.2021	application for examination	submitting the application for examination at the EPO	approx. EUR 3,200
28.07.2021	report	report of the United States Patent Office challenging the patentability of the invention	
20.08.2021	addressing the allegations	making the necessary corrections, developing an argument in favor of the invention (cooperation of scientists and a patent attorney)	approx. USD 2,000
10.12.2021	decision to grant a patent	the issuance of a decision by the patent office in the United States to grant the patent	approx. USD 1,500 (protection for approx. 3.5 years)
28.12.2021	correction of the application to the EPO	submitting a correction to the EPO taking into account the allegations made by the US patent office	approx. EUR 500
29.04.2022	decision to grant a patent	the EPO issues a decision on granting a patent	approx. EUR 2,110 (protection approx. 4 years)
15.09.2022	validation	patent validation in Poland, Great Britain, Germany and France	approx. EUR 2,000

* the amounts of fees are estimated values, their amount is influenced by many factors, e.g. the level of complexity of the invention, experience and knowledge of the attorney
* after obtaining a patent, fees are also increased in subsequent years (in Poland and Germany every year, in the United States every 4 years)
* the adopted dates are estimated

Source: own study.

The patent procedure shown above usually takes an estimated 4 years. In the first year, the applicant has to pay approximately EUR 4,600. In the following year, the cost is around EUR 3,400. In the third year of the patent procedure, this cost increases significantly to approximately EUR 6,800. In the last year, it was EUR 3,600. The total cost of the procedure in the analyzed example was approximately EUR 18,400.

Table 3 shows the time and cost of the patent procedure with a wide territorial scope (international PCT procedure), which covers Poland, the EPO (Germany, France, Great Britain, Italy, the Netherlands and Spain) and the United States, Japan, China and Russia (third case).

Table 3. Time and cost of patent procedures when an invention is filed internationally

Date	Step	Description	Cost
1.01.2019	invention	discovery of the invention by scientists	
1.02.2019	patentability analysis	providing the patent attorney with a preliminary description of the invention	approx. PLN 3,000
2.05.2019	submitting the invention	filing a patent application with the Polish patent office	approx. PLN 5,500
7.10.2019	report	patent office report challenging the patentability of the invention	
5.01.2020	addressing the allegations	making the necessary corrections, developing an argument in favor of the invention (cooperation of scientists and a patent attorney)	approx. PLN 2,000
2.05.2020	PCT application	the patent application must be made within 12 months of the first filing in the country	approx. EUR 5,000
2.05.2021	application for examination	submitting the application for examination at the EPO	approx. EUR 3,200
28.07.2021	report	PCT report challenging patentability of the invention	
20.08.2021	addressing the allegations	making the necessary corrections, developing an argument in favor of the invention (cooperation of scientists and a patent attorney)	approx. EUR 3,000
12.12.2021	national stages	if the result of the international study is positive, the procedure continue with successive national stages.	approx. EUR 6,900 and USD 12,400
2.05.2022	application for examination in China	filing an application for examination with a patent office in China	approx. USD 650
2.12.2022	decision to grant a patent by EPO	the EPO issues a decision on granting a patent	approx. EUR 1,525
2.02.2023	decision to grant a patent	notice based on documents obtained by the United States Patent Office	approx. PLN 1,200 (protection approx. 5 years)
2.03.2023	validation	patent validation (based on EPO decisions) in Poland, Great Britain, Germany, France, the Netherlands, Italy and Spain	approx. EUR 6,000

2.05.2023	application for examination in Japan and Russia	filing an application for examination with a patent office in Japan and Russia	approx. EUR 500 and USD 1,600
28.07.2023	report	report of the United States Patent Office challenging the patentability of the invention	
20.08.2021	addressing the allegations	making the necessary corrections, developing an argument in favor of the invention (cooperation of scientists and a patent attorney)	approx. PLN 2,000
10.12.2021	decision to grant a patent	the issuance of a decision by the patent office in the United States to grant the patent	approx. USD 1,500 (protection for approx. 3.5 years)
3.01.2024	report	report of the patent office in Japan contesting patentability of the invention	
4.02.2024	addressing the allegations	making the necessary corrections, developing an argument in favor of the invention (cooperation of scientists and a patent attorney)	approx. PLN 3,000
20.03.2024	report	report of the patent office in China challenging the patentability of the invention	
13.04.2024	addressing the allegations	making the necessary corrections, developing an argument in favor of the invention (cooperation of scientists and a patent attorney)	approx. PLN 3,000
6.09.2024	report	report of the patent office in Russia challenging the patentability of the invention	
15.10.2024	addressing the allegations	making the necessary corrections, developing an argument in favor of the invention (cooperation of scientists and a patent attorney)	approx. USD 1,500
first half of 2025	decision to grant a patent	decision on granting a patent by patent offices (China, Russia and Japan)	approx. USD 1,200 and EUR 400

* the amounts of fees are estimated values, their amount is influenced by many factors, e.g. the level of complexity of the invention, experience and knowledge of the attorney
* the adopted dates are estimated

Source: own study.

The patent procedure shown above usually takes an estimated 8 years. In the first year, the applicant has to pay approximately EUR 2,000. In the following year, the cost is EUR 5,500. In the third year of the patent procedure, this cost increases significantly to approximately EUR 25,000. In the last

year, it was EUR 3,600. The total cost of the procedure in the analyzed example was approximately EUR 18,400 EUR. In the fourth year, the costs amounted to EUR 2,100, in the fifth — EUR 9,700, in the sixth — EUR 12,300, in the seventh — EUR 3,000, and in the last year, the cost was EUR 1,300. The total cost of the procedure in the analyzed example was EUR 60,900.

Comparing the cost of the patent procedure in the three analyzed situations, it is clearly noticeable that obtaining a patent outside one's own country, especially in the international arena, becomes very costly and time-consuming for the applicants. Undoubtedly, these are the factors that limit the number of patent applications filed in Poland, especially by small entities.

Conclusions

Innovation has always been a driving force in socio-economic development. In Poland, too, much has been said recently about the importance of innovation and patenting activity for the future development of the country. At the same time, little attention is paid to research on such a fundamental area for the economy as patent activity and its impact, often limiting, on the innovativeness of a country.

Undoubtedly, the possession of patents increases the market opportunities for a given entity, because a competitive advantage is gained and the inventor's reputation and market value are raised. In addition, by owning patents, a given entity may obtain many different additional benefits, i.e.:

— obtaining a monopolistic position by producing according to a patent which competition has no access to;

— sale of a patented invention;

— licensing;

Despite the numerous benefits of patenting an invention, few entities in Poland decide to undertake this action, which is due to several reasons. First of all, the awareness of Polish entities about the benefits of patent protection is very low. Inventors do not know what can and even needs to be patented. Therefore, it seems necessary to take actions aimed at increasing the knowledge of entities regarding the possibility of legal protection.

Another important point is that the current patent law for most inventors is quite complicated and unclear. Therefore, it should be simplified to the maximum or to a greater extent, at least at the stage of the patent procedure in terms of guidance (e.g. increasing the availability of free consultancy). The first stages of the patent procedure in particular tend to be the most difficult for entities applying for inventions. A good solution would be to increase the possibility of free training for entrepreneurs and scientists on the patent procedure, as well as basic information on inventions, patents and their market valuation.

In addition, the cost of the patent procedure is also an important issue. While the costs of such procedure in Poland is not relatively high (comparable to the EU average), the costs of the international procedure are often too high for smaller entities. Therefore, it seems justified for the state to financially support this type of activity. This is important because patenting an invention only in one's own country gives little in the present times, when competition is usually global. In order for the economy to be highly innovative, it is necessary to have patents on an international scale.

The table below summarizes the main arguments in favor of starting a patent procedure, as well as the reasons to the contrary.

Table 4. Arguments in favor of starting a patent procedure and the reasons to the contrary

	No patenting	Patenting
For	— costs related to keeping the invention secret are much lower than those related to the patent procedure; — the protection of the unpatented invention is not limited in time; — keeping the invention secret allows the company to obtain a monopolistic position on the market	— owned patents have a positive effect on the brand and image of the company; — the patent owner has the opportunity to obtain additional income by granting a license; — the patent holder has the exclusive right to use it throughout the period of protection; — the patent owner has the legal preventive measures to successfully bring forward claims against people who have violated the rules of patenting;
Against	— keeping an invention secret is difficult, sometimes even impossible; — high risk of disclosing the secret of the invention; — in the event that the invention is publicly disclosed, each entity may use the given solution.	— a patent applicant is obliged to publicly disclose its essence; — patent protection lasts a maximum of 20 years from the date of filing the patent application; — the patent is spatially limited as it is valid only in the territory of the country (s) where it was granted; — the costs of obtaining a patent and the costs of pursuing claims under the patent in court are very high.

Source: own study.

However, it can be expected that in the coming years, companies operating in Poland will be more and more active and effective in conducting patent activities, both at home and abroad. This will be facilitated by three factors: the grow-

ing level of internationalization of the Polish economy, the need to compete with Western enterprises that better protect their intellectual property, and the availability of funds to support innovative activities.

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Town design and town communications in the process of image creation of Wroclaw and Malaga

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Abstract

Creating a positive image is one of the most important activities undertaken not only by enterprises, but also by territorial units. Cities and regions can see the need to create and maintain a good image as an important factor of competitive advantage facilitating opportunities for dynamic development. Nowadays, the most active in this respect are large urban centers which are managed in a creative way, and a good image, which is their most important intangible asset, definitely facilitates competition in increasingly demanding markets. The paper aims to present activities within town design and town communications, which, apart from town behavior, belong to the basic components of the process of creating the image of modern cities. One of the qualitative methods, which is a case study, was applied due to the possibility of making comprehensive comparisons based on the information identified. The examples of two culturally distant cities were used, namely the Polish city of Wroclaw and the Spanish city of Malaga, which, in many areas of creating their image, carry out similar activities. In both cities, the commercialization of city symbols is visible at the expense of historical and cultural aspects. The communication with stakeholders is similar, in which interactive techniques dominate, and particular activity manifests itself in social media and in the development of urban applications that perform both information and entertainment functions.

Introduction

Various marketing activities are the domain of not only enterprises, organizations and institutions, but also territorial units. Countries, regions and cities see the need to undertake such activities which may become an important asset that supports dynamic development and the possibility of obtaining multi-dimensional benefits. Currently, the most challenges in this respect are faced by urban centers, which want to be positively perceived by the environment, including residents and investors, and their ambitions are also growing to enhance their attractiveness in the eyes of tourists. One can see a tendency to more and more creative city[1] management, taking into account the complexity of processes that influence their character and the possibility of their further development (Ooi and Yuen, 2010). Globalization is one of such processes. Cities, while competing with each other for the interest of the media, investors and tourists, or for the possibility of organizing sports or entertainment events, more and more often confront not only centers located in a given region, but also geographically very distant ones (Herget, Petrů and Abrhám, 2015, 121). This creates completely different possibilities, but also the necessity of using new operation methods in the conditions of much stronger competition.

Therefore, in the marketing management of contemporary cities the greatest attention is paid to the process of creating their image. A good image is considered, as in the case of a company and an organization, as the most important intangible asset of the city, which definitely facilitates the possibility of competing in the increasingly demanding markets.

1. Theoretical framework of the research

The problem of creating an image on the ground of territorial marketing was taken up by American urban planner Kevin Lynch in the 1960s, who pointed out that the way a place was perceived was influenced not only by direct contact with urban reality, but also by the activities of various media (Lynch, 1960, 6). Cities were treated as places of trade, but also symbolic (impressions and cultural expressions), and the process of shaping the image was to take into account economic and social changes, on the one hand, and local identity (Jansson, 2003, 463), on the other. In contemporary cities, apart from stimulating the development of entrepreneurship, attention is paid to the achievements resulting from tradition, so that the shaping of the urban environment can be sustainable (Levenda and Tretter, 2020, 490).

[1] An interesting study on the development opportunities of one of the most creative cities not only on the African continent can be found in Nkula-Wenz (2019, 581–597).

Currently, the subject of research and analyses is the image of territorial areas perceived both from the perspective of people living in a given area and other entities. This image is treated as the result of direct and indirect contacts of people with a given place, it is the image created in the minds of the residents, but also of "external clients", among whom tourists play a special role (Lalli and Plöger, 1991, 25–26). Therefore, the image of the city can be defined as "the totality of subjective perceptions of reality that have arisen in human minds as a result of perception, the impact of mass media and informal information messages" (Szromnik, 2016, 146). Thus, it is the sum of ideas obtained on the basis of experiences, knowledge and stereotypes that influence the attitude towards a given place on an emotional level (Herget, Petrů, and Abrhám, 2015, 119).

The image of a city is inextricably linked with the image of a region or a country (Szromnik, 2016, 158). This relationship is two-way in its nature; therefore, the image of a particular city may affect the perception of larger territorial units which it is part of. Similarly, the way how the image of a country or region is perceived determines to some extent the perception of a given city. It is worth assessing the strength of this correlation and the way it influences when creating an image management strategy. A similar relationship can be seen in the case of the so-called "country of origin effect," which can also be applied to a region or a city. The image of a given territory can positively influence the perception of the brand or the product category associated with it. This influences the decisions of companies that are more willing to invest in areas with a favorable image, as they hope that it will translate into an attractive image of products manufactured in a given area. Thanks to this bilateral relationship, territorial units can, in turn, gain recognition and strengthen their image in the eyes of recipients (Piechna and Renigier-Biozor, 2010, 174).

2. Research methodology

In the process of creating the image of a settlement unit, one can designate three main components (Töpfer and Müller, 1988):

— town design, i.e. the visual image of the city,

— town communications, i.e. the way in which the city communicates with its surroundings,

— town behavior that constitutes a set of behaviors and actions undertaken by a town.

These three elements are interdependent and interact with each other, and play a fundamental role in the image creation process. The first two are the subject of this paper, the purpose of which will be to present various aspects of shaping activities within town design and town communications, along with their conditions and consequences for further dynamic development of cities.

To illustrate these issues, one can apply the case studies of two large European cities, namely the Polish Wroclaw and the Spanish Malaga. Although they are culturally distinct, both have many common features. Both cities are among the largest in their respective countries and places with a rich history where different cultures intertwined, which largely determined the present identity of these cities. Cultural distinctiveness, on the one hand, but also many similarities, inspired the authors to analyze in detail the visual and communication aspects of the process of creating the image of these cities. Due to the purpose of the research, the case study method seems to be the most appropriate because of the possibility of identifying cognitive problems. It enables comprehensive comparisons to be made on the basis of information from various sources.

3. System of graphic standards and city symbols within town design

Elements of a town's design create a visual image of a city, and their combination contributes to its recognition and makes it stand out from others. The town design in a broader sense covers not only a unified system of graphic standards, but also the architecture and urban values of the city and other areas that make up the urban fabric (Akhmedova and Zhogoleva, 2017). However, the elements of visual identification are the most important, i.e. the coat of arms and the flag, colors and symbols of the city (e.g. characters related to the town, unusual buildings or monuments, natural attractions and names). The system of graphic standards also includes a fixed typeface used in promotional materials, a font used in official correspondence, and graphic design for leaflets, catalogs, folders, books and maps branded by the city. The visual identification system also applies to all types of content made available on the city's websites or its profiles in social media. The method of external and internal labeling of municipal offices and institutions and their decor (interior aesthetics, facilities for applicants, legibility of information boards), as well as badges and clothing of officials, law enforcement services and technical employees also play a significant role. The method of marking public means of transport and the organization of events the city is involved in are also important.

Consistency in the use of individual elements is important in the town design concept. Thanks to it, the city is consistent and in an ordered state in the eyes of the recipients. The use of repeating motifs does not have to be schematic and lead to monotony, as they can be flexibly adapted to the situation, and supplemented, while at the same time being part of a comprehensive vision. Activities related to the development of urban space should also be undertaken with the intention not to violate the identity of the city, but rather to gradually modify and shape it.

The coat of arms, the flag and the logo are the city's identities. The coat of arms of Wroclaw was established by the City Council in 1990 on the basis of the shape given to it in 1530 by Ferdinand I of Habsburg (Figure 1).[2] It has the form of a shield divided into four parts. In the upper parts, there is a lion with a crown, referring to the Czech coat of arms, and a black eagle with outstretched wings, symbolizing the Silesian Piast dynasty. The bottom of the coat of arms is the initial of Wroclaw and the bust of Saint John the Evangelist. The central place is occupied by the head of John the Baptist, the patron of the city and its cathedral. The colors in red, white, yellow and black harmonize with the red and yellow flag of Wroclaw, which the coat of arms is also often placed on.

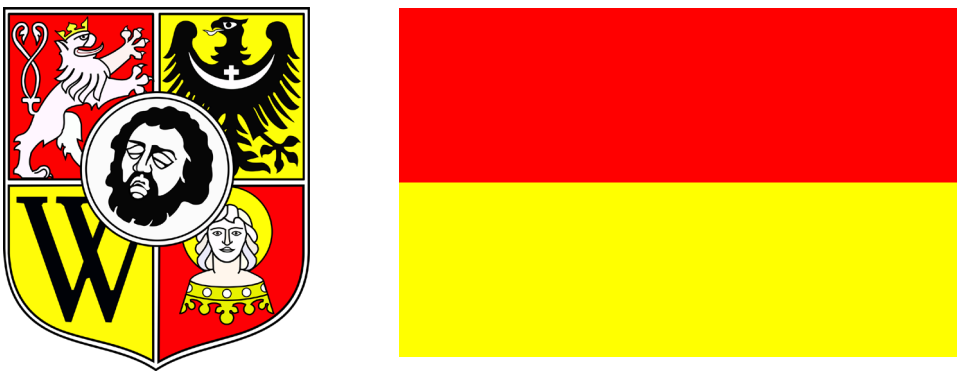

Figure 1. The Wrocław coat of arms and the flag

Source: www.wroclaw.pl/herb-logo-barwy. Date of access: 11.07.2021.

On the other hand, the coat of arms of Malaga was established in 1494 by order of the Catholic Kings' dynasty,[3] which was ruling in Spain at that time. Against the backdrop of the red sky, it features the Gibralfaro Castle with a courtyard full of Christian prisoners. The red symbolizes the areas around the city during the bloody Reconquista. In the upper part there are the figures of the martyrs, Cyriac and Paula, the patrons of the city, facing each other. The edges of the hill and fortress are washed by the sea of silver-blue waves that emphasize the importance that kings Isabella and Ferdinand wanted to give to the port of Malaga. The scene is placed against the background of a larger, green and purple shield. The coat of arms is crowned with a golden royal crown encrusted with precious stones and surrounded by the inscription: "Very noble and very loyal Malaga, always bold, first in danger of freedom, very hospitable and very benevolent" (Muy noble y muy leal ciudad de Málaga, siempre denodada, la primera en el peligro de la libertad, muy hospitalaria y muy benéfica). These terms were added to the coat of arms at various times, the last one in 1922. The flag of Malaga contains the coat of arms of the city, from which it took over its dominant colors (Figure 2).

[2] www.historia.org.pl/2014/03/11/herb-i-pieczec-miasta-wroclawia. Date of access: 11.07.2021.

[3] www.diariosur.es/malaga-capital/significa-escudo-malaga-20180214124648-nt.html. Date of access: 11.07.2021.

Figure 2. The Malaga coat of arms and the flag

Source: es.wikipedia.org/wiki/Símbolos_de_Málaga. Date of access: 11.07.2021.

While the coat of arms is deeply rooted in history, the logo tends to show the city's contemporary image, or the one to which it aspires. The Wroclaw logo was selected in a competition in 1996 and has remained unchanged since then (Figure 3).[4] The blue and yellow bands with a red triangle between them form the letter "W." Contours resembling the characteristic Gothic facade of the Wroclaw town hall are marked with a black line.

The logo of Malaga consists of the name with the slogan: "Ciudad Genial," which can be translated as "brilliant or wonderful city" (Figure 3). The word "genial' in Spanish is quite multifaceted, with a range of positive meanings; it can also be understood as giving pleasure, joy or favoring a creative genius.[5] In 2017, the logo was given a more modern shape by changing the initial letter "M" — in the current version it is made of colorful brush strokes in the colors of red (symbolizing creativity and development), blue (sky and sea), green (nature and life) and black (passion accompanying dedication to art and culture).[6]

Figure 3. The logos of Wroclaw and Malaga

Source: www.malagaturismo.com. Date of access: 11.07.2021; www.wroclaw.pl/herb-logo-barwy. Date of access: 11.07.2021.

[4] www.wroclaw.pl/herb-logo-barwy. Date of access: 11.07.2021.

[5] Based on the dictionary Real Academia Española, www.rae.es. Date of access: 11.07.2021.

[6] www.malagaturismo.com/es/noticias/detalle/malaga-ciudad-de-museos.-donde-habita-el-arte-la-nuevamarca-turistica-para-reforzar-la-oferta-cultural./553. Date of access: 11.07.2021.

Both Wroclaw and Malaga have developed a coherent system of graphic standards, which is successfully used in correspondence, when designing promotional or informational materials, signs of municipal buildings, etc. Both settlement units have created extensive documents defining individual guidelines: *Visual Identity Book* approved by the Office City of Wroclaw and the *Manual de Usos de la Identidad Visual Corporativa Municipal* concerning Malaga, divided into 11 chapters.[7] In the case of Malaga, the typeface of official clothes, marking of public transport, street signs, taxis, police vehicles and badges were also specified. The development and unification of norms concerning the above-mentioned standards proves the awareness of the authorities of both cities that it is important to build a coherent system of visual identification. Therefore, the rules applied in Malaga include many more elements than in Wroclaw.

Each city has different symbols, by means of which it tries to distinguish itself from other centers. Dwarves have become one of the most characteristic symbols of Wroclaw in recent years. These are small figurines that began to appear in various parts of the city since 2001, in reference to the opposition activities of the 1980s undertaken by the Orange Alternative movement (Wawrykowicz, 2017), whose members painted dwarves on stains of paint, with which militiamen covered anti-communist slogans placed in urban space. One of the best remembered initiatives of the Orange Alternative was a 1987 event in which people wearing dwarf hats were taken to provoke a reaction from the police. The behavior of the services exceeded the expectations of the holders of the action, who expected that the militiamen would try to remove the headgear of the participants, but they began to arrest people disguised as dwarves, which had an even more grotesque effect.

In the following years, it was found that the dwarf could be the original symbol of the city (Figure 4) and a tourist attraction.[8] Since then, the number of dwarves has grown steadily, and currently there are nearly 400 of them in Wroclaw. City games related to this subject are held. The mobile applications "Wroclawskie Krasnale" (Wroclaw's Dwarves) and "Go Wroclawskie Krasnale" (Go Wroclaw's Dwarves) have been also developed, enabling the localization of as many of them as possible.

[7] www.malaga.eu/el-ayuntamiento/imagen-corporativa/#manual-de-usos. Date of access: 11.07.2021; www.bip.um.wroc.pl. Date of access: 11.07.2021.

[8] www.wroclawskiekrasnale.pl. Date of access: 11.07.2021.

Figure 4. Wroclaw's Dwarves: "Economist" and "Sisiphus"

Source: www.krasnale.pl. Date of access: 11.07.2021; www.wroclaw.fotopolska.eu. Date of access: 11.07.2021.

One of the symbols associated clearly with the capital of Costa del Sol is *biznaga*, an intricately made plant composition of jasmine flowers attached to a dried base. *Biznageros*, i.e. the creators of these exquisite bouquets, exuding a subtle scent, must show a considerable dose of precision and patience. In the summer, one can meet them dressed in traditional costume, selling *biznageros* in the historic part of the city (Figure 5). During the Malaga Film Festival, the main distinction is *Biznaga de Oro*, or Golden *Biznaga*, and thanks to this award, the symbol is well recognized among the inhabitants of various regions of Spain.

Figure 5. *Biznagas* and *biznaguero* selling them

Source: www.facebook.com/MalagaTurismoOficial. Date of access: 11.07.2021.

Although *biznaga* is an inseparable element of the identity of the capital of Costa del Sol, the most emblematic symbol of Malaga in recent years has undoubtedly become the painter Pablo Picasso, who was born there in 1881. The connections between the city and the artist have been more strongly emphasized since the establishment of the Pablo Ruiz Picasso Foundation by the city council in the 1980s, which focused on researching and popularizing the artist's output.[9] These connections have been particularly emphasized since the inauguration of the Picasso Museum in 2003. The figure of the painter has become, in a way, the leitmotif around which the entire image strategy of Malaga, aspiring to be a city of culture and art, a city of museums, is built (Figure 6). The local airport was also named after him.[10] Some point out that the desire to use Picasso's profile to promote Malaga has led to a certain mythization, obscuring the true biography of the artist who left his hometown at the age of 10, returning to it just a few times, the last time at the age of twenty (Zapata Vázquez, 2018). The significance of the city in the painter's life is exaggerated. There are criticisms that the historic center is beginning to resemble a theme park dedicated to the person of Picasso, while the motives for making Malaga a center so strongly committed to commemorating the Spanish artist are not convincing.

Undoubtedly, the promotional activities of Wroclaw and Malaga show a consistent focus on one symbol, which is to become a hallmark, both in the eyes of residents and tourists. Malaga focuses on cultural heritage, which is to be embodied by the famous painter, while Wroclaw wants to stand out as a city where more and more often one can come across figurines of dwarves, which in an unobtrusive, often humorous way, blend into the city space, arousing a rather positive emotions and thus consolidating the image of a friendly place. Although both symbols are avoided and seemingly do not share many features, paradoxically they share a certain detachment from historical truth. Dwarves could become a symbol of human determination in the fight against totalitarianism and an important testimony of the past, bringing the history of the anti-regime opposition closer to generations who did not remember the times of the Polish People's Republic, or to foreign tourists. Meanwhile, their role was limited to a marketing tool, and insufficient exposure of the historical significance of Wroclaw dwarves leads to a kind of infantilization of the city's symbol. In Malaga, we are dealing with the opposite phenomenon: reinterpreting Picasso's biography and exaggerating the influence of his hometown on the artist's life and work. These activities, in turn, distort the authenticity of the city's image, and create an image whose sole purpose is to stimulate cultural tourism. Both examples clearly show the danger associated with the commercialization of city symbols, leading to the creation of an illusory image that can insufficiently or excessively emphasize certain historical and cultural aspects.

[9] www.fundacionpicasso.malaga.eu. Date of access: 11.07.2021.

[10] www.aeropuertodemalaga-costadelsol.com. Date of access: 11.07.2021.

Figure 6. The Picasso Monument at *Plaza de la Merced* in Malaga and the artist's family home, now the seat of the Picasso Pablo Ruiz Foundation and museum

Source: www.facebook.com/MalagaTurismoOficia. Date of access: 11.07.2021; www.museocasanatalpicasso.malaga.eu/. Date of access: 11.07.2021.

4. Town communications

Another component of the city's identity is town communications, i.e. a system of a territorial unit communication with various groups of recipients. It includes a variety of forms for communicating information to stakeholder groups. Public relations, publicity and sponsoring activities focused on building and maintaining appropriate relations between the territorial unit and target markets play a key role in the process of communication of the city with target groups.

The city's communication system is a multifaceted and complex issue. Its components largely influence the perception of a territorial unit by all target groups. Currently, the Internet is a very important communication channel, and websites administered by local authorities are among important sources of information about the city. In both Wroclaw and in Malaga, there are websites of this type with news and general information, while the official website of Wroclaw, www.wroclaw.pl (Figure 7) also includes foreign-language versions (English, German and Ukrainian), while the Malaga website www.malaga.eu (Figure 8) is available only in the native Spanish, but it seems more intuitive and looks better visually and no commercial advertisements appear on it. Both cities also have a separate tourist service. In this case, the Wroclaw website www.visitwroclaw.eu is run in Polish,

English, German and Spanish, while the www.malagaturismo.com website dedicated to tourism in Malaga is available in seven languages. The multilingualism of the website is a great advantage for a tourist, both at the stage of choosing a destination and during a visit to the city. In this respect, Malaga has a certain advantage over Wroclaw, as it offers more convenient access to information to a wider audience. Due to the aesthetic graphics and modern design, the official Wroclaw tourist website seems to be more functional and user-friendly. The most important attractions of the city are well exposed. The main page also displays an interactive map with points important from the tourist's point of view — places worth visiting, events, restaurants and hotels. While the Malaga logo is clearly visible on the website, only the black and white thumbnail of the coat of arms appears in the footer of the website on tourism in Wroclaw.

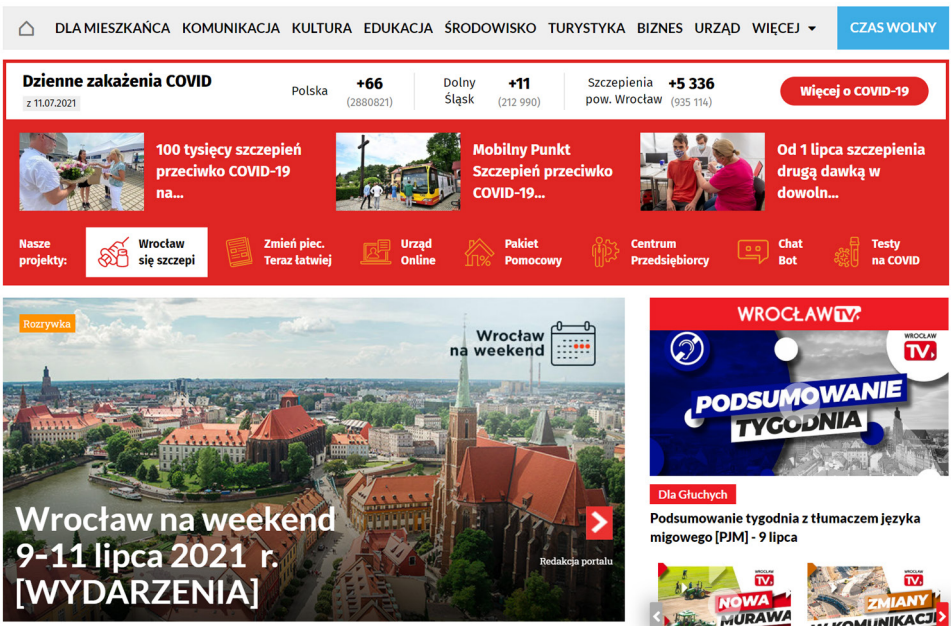

Figure 7. The official website of Wroclaw

Source: www.wroclaw.pl. Date of access: 11.07.2021.

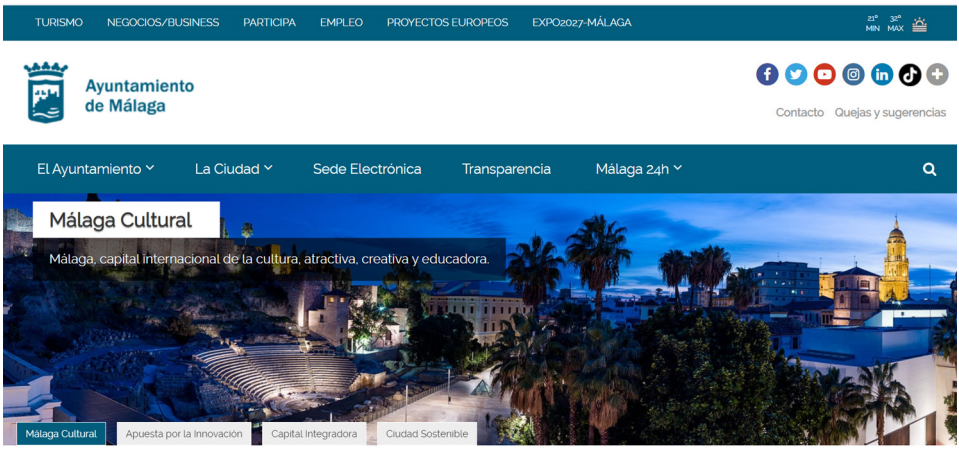

Figure 8. The home page of the Malaga City Hall website

Source: www.malaga.eu. Date of access: 11.07.2021.

Due to the growing importance of online communication channels with target groups, it is also worth comparing the activity of Wroclaw and Malaga on social media. Both cities have official fanpages on Facebook, Twitter and Instagram. The number of users watching the profile of the capital of Lower Silesia called "Wroclaw [Wroclove]" on Facebook is 304 thousand, which is a much better result than for Malaga (184.4 thousand) — "Málaga Ciudad Genial."[11] Wroclaw frequently uses the option to create events on Facebook, while information about events taking place in Malaga is most often included in posts and graphics. On the Malaga fanpage, one can find entries with translations in other languages, which proves the willingness to build relationships with foreign segments; while only content in Polish appears on the Wroclaw profile, which narrows the target group. Since 2016, the Visit Wroclaw fanpage has also been in operation, which so far has almost 40 thousand followers.[12]

The profile of Wroclaw is also more popular among Twitter users, with 81.2 thousand followers, while for Malaga the number is 31.1 thousand.[13] However, it should be borne in mind that the community of as many as 156 thousand users are gathered around the official fanpage of the Malaga City Hall, which is aimed primarily at residents and is more informative than the one administered by the Wroclaw Tourism Department, which is oriented towards presenting the values of the city as a travel destination. The profile of Wroclaw is very active on Instagram, attracting 124 thousand followers, and the Malaga account attracted

[11] www.facebook.com/wroclaw.wroclove. Date of access: 11.07.2021; www.facebook.com/MalagaTurismoOficial. Date of access: 11.07.2021.

[12] www.facebook.com/visitwro. Date of access: 11.07.2021.

[13] www.twitter.com/wroclaw_info. Date of access: 11.07.2021; www.twitter.com/turismodemalaga. Date of access: 11.07.2021.

63.8 thousand application users.[14] The Malaga fanpage on Instagram usually publishes the same content as on Facebook and Twitter; Wroclaw's Instagram profile is significantly different from the other two on social media and has a much more artistic color. The photos posted there show Wroclaw from different perspectives, thanks to which the profile also acquires a more universal dimension. The charm of the city is presented in a subtle and interesting way.

Technological development is also conducive to the creation of applications dedicated to the city, which can serve both informational and entertainment functions. Wroclaw encourages the use of the Footsteps[15] mobile application on its tourist website. It has the character of a personalized guide which, after selecting a profile matching their personality (e.g. an art lover, a gourmet, a tourist), proposes a route that will best fit their expectations. People using Footsteps have an interactive map at their disposal, and the application includes photos of attractions, their descriptions, thematic videos and links to the official websites of individual places. Footsteps is currently only available in Polish. The website www.visitwroclaw.eu also mentions other mobile applications that can make it easier for visitors to move around the city, make a visit to the Wroclaw Zoo more attractive or facilitate the search for dwarves, but most of them are not strictly platforms created on the initiative of the city hall.[16]

Malaga recommends four applications to tourists. The first one, called Audio Tour Official Malaga, is the official city audio guide, with 95 marked locations on the map. Like Footsteps, it also has a lot of additional information. Malaga City Hall initiated the creation of the Playas de Málaga application dedicated to city beaches; it includes, among other things, the characteristics of each of them, notifications about current weather conditions and emergency numbers. Another application recommended by the tourist website is Aparcamientos Málaga SMASSA, which informs one in real time how many parking spaces are available in each car park and how to get to them. Málaga Turismo, in turn, is a knowledge base about the tourist attractions of Malaga.

Malaga's offer in terms of mobile applications strictly focused on tourists is richer than in Wroclaw, where one can, however, easily reach for applications that facilitate access to information about the city or travel around it, which are aimed at various target groups (e.g. iMPK [e-Municipal Public Transport Service], Wrocławski Rower Miejski [Public Bikes in Wroclaw], Uber). Mobile applications make it possible to shape the image of a place; thanks to them, cities can be perceived as modern and progressive. They create an opportunity to personalize the messages conveyed to tourists and to obtain information about their features.

[14] www.instagram.com/wroclaw_official/. Date of access: 11.07.2021; www.instagram.com/malagaturismo/. Date of access: 11.07.2021.

[15] www.visitwroclaw.eu/odkryj-wroclaw-z-footsteps. Date of access: 11.07.2021.

[16] www.visitwroclaw.eu/zwiedzanie-wroclawia-w-wakacje-przy-pomocy-aplikacji-na-smartfon. Date of access: 11.07.2021.

The official websites of cities and their profiles in social media or travel mobile applications, apart from being informative, have many features of advertising messages. They can take a variety of forms, and usually a catchy slogan is its essential element. The most popular promotional slogan, "Wroclaw — the meeting place," refers to the words of John Paul II, who in 1997 called the capital of Lower Silesia "a city of meetings — a city that unites," reminding everyone that different cultures intertwine here.[17] The slogan "Wroclaw — a city of meetings" suggests that this place is conducive to building interpersonal bonds. The graphic form of the promotional logo, developed in many language variants, was standardized (Figure 9).[18]

Figure 9. Logo "Wroclaw — the meeting place" in Polish and English language versions

Source: *Księga identyfikacji wizualnej*, Urząd Miejski Wrocławia, www.bip.um.wroc.pl. Date of access: 11.07.2021.

The Malaga slogan, which is an integral part of the city's logo, is the aforementioned "Ciudad Genial." Recently, the slogan "Malaga — the city of museums" has been used for promotional purposes, the main task of which is to emphasize the rich cultural offer of the place. The typeface used in the city's logo is based on a graphic depicting the six most symbolic museums: the characteristic colorful edifice of the Pompidou Center, the Malaga Museum, the Center for Contemporary Art, the Picasso Museum, the building that houses the collection of the Museum of Russian Art and the Automobile and Fashion Museum (Figure 10).[19] Below the slogan there is an inscription: "where art lives" (*donde habita el arte*). The colored graphics are only available in the Spanish version and may be less readable if foreigners come into contact with them.

[17] Wrocław w perspektywie 2020 plus, p. 17; The Pope's words were adopted as the city's mission, which was partially modified only in the newest strategy of Wroclaw; www.wroclaw.pl/strategia2030. Date of access: 11.07.2021.

[18] Księga identyfikacji wizualnej, Urząd Miejski Wrocławia, www.bip.um.wroc.pl. Date of access: 11.07.2021.

[19] www.malagaturismo.eu. Date of access: 11.07.2021.

Figure 10. Graphics "Malaga — the city of museums"

Source: www.twitter.com/turismodemalaga. Date of access: 11.07.2021.

Based on the analysis of the content of the book guides, one can see how the slogans and thus the entire branding process of Malaga have evolved over time (Barrera Fernández and Meethan, 2014, 220–221). At the beginning of the twentieth century, great importance was attached to religious buildings, and the book guides also mention sanitary conditions. Later, the focus was on aspects such as the favorable climate, the possibility of swimming in the sea and the multitude of monuments. In the last decades of the last century, more attention was paid to the gastronomy of Malaga and the sports activities one can try there.

As part of public relations, communications for the media[20] are regularly published on the official websites of Wroclaw and Malaga in a special tab. *Publicity*, however, plays a more significant role in relation to the tourist segment. For Wroclaw, the opportunity to gain greater international recognition was the title of the European Capital of Culture 2016, the organization of the World Non-Olympic Sports Games in the summer of 2017 and the first distinction in the Best European Destination 2018 competition. Reaching a bit further in the past, the European Football Championship (UEFA Euro 2012) co-organized by Poland, during which matches were also played in the capital of Lower Silesia, also turned out to be of importance. In the case of Malaga, one should mention one of the most famous cultural events in Spain, which is the Malaga Film Festival (Festival de Málaga), with over twenty years of tradition. This event is widely commented on

[20] www.wroclaw.pl/komunikaty-dla-mediow. Date of access: 11.07.2021; www.malaga.eu/el-ayuntamiento/notas-de-prensa. Date of access: 11.07.2021.

in the press every year.[21] Malaga is also famous for its annual August break (Feria de Málaga), which is a city festival lasting several days, organized on a grand scale and attracting crowds of tourists each year from Spain and from other parts of the world.[22]

Both Wroclaw and Malaga have decided to introduce a special card, thanks to which tourists can take advantage of various price offers. Cards can be purchased at tourist information points or via the mobile application.[23] Wroclaw Tourist Card holders can count on promotions in selected restaurants and hotels, bargain prices of admission tickets to tourist attractions, discounts on transport services (e.g. cheaper taxi or discounts on car rental). In addition to similar benefits, the Málaga Pass also provides access to tourist attractions without the need to wait in line. In Wroclaw, one can choose from a 48- or 72-hour card; in the case of Malaga, in addition to those listed, it is possible to buy a one-day or weekly package. As part of the Málaga Pass, each of the four options is assigned a list of attractions, to which you have free access after purchasing the card. However, these packages are rigidly defined; only using all the points guarantees savings at the level of 33%. The formula of the Wroclaw card is more flexible when it comes to the selection of attractions that a tourist wants to see; within the limit of points, it is possible to visit any chosen place without paying extra for admission. The Wroclaw Tourist Card provides two price options: reduced and normal. There is even a separate website for Malaga at www.malagapass.com, where one can find detailed information about the card. The weakness are the regulations, available only in Spanish, which may discourage some foreign tourists from taking advantage of the offer. The website itself, however, has several language versions, which is convenient for foreigners visiting the city. There is no mention of the Málaga Pass in the "Applications" tab of the Malaga travel website, although it is listed elsewhere on the website.

5. Conclusions

There is no doubt that creating the image of cities is an exceptionally current research problem, and various solutions for shaping their visual image and the way of communicating with the environment are the basis to achieve a competitive advantage. The perception of places is influenced by many different factors; therefore this issue should be treated as a whole. The authorities of the city of Wroclaw and Malaga seem to notice this complexity and shape the face of their towns and

[21] www.festivaldemalaga.com. Date of access: 11.07.2021.

[22] www.feria.malaga.eu. Date of access: 11.07.2021.

[23] www.visitwroclaw.eu/wroclaw-tourist-card. Date of access: 11.07.2021; www.malagapass.com. Date of access: 11.07.2021. However, due to the COVID-19 pandemic the tourist cards in Wroclaw are currently not available until further notice.

the system of communicating with stakeholders, among whom tourists play an important role, in a controlled manner. Both cities have developed a uniform system of visual identification and communication, in which an increasingly important role is played by activities aimed at tourists based on mobile applications that enable independent sightseeing and facilitate movement in the city space, as well as giving an opportunity to take advantage of attractive price promotions in public transport, gastronomic premises and when visiting tourist attractions. Both Wroclaw and Malaga also strive to gain international publicity by organizing or participating in supra-regional events. Both cities are also aware of the ongoing changes in the preferences of travelers and are trying to fit into the new, more and more common tourism model on the basis of 3E (entertainment, excitement, education).

Each city builds its image on the basis of a certain set of attributes it has, but even seemingly different cities, such as Wroclaw and Malaga undertake similar activities, although based on slightly different distinguishing features. This type of comparison can be used as an inspiration for better planning of image strategies and introducing improvements, for instance in the field of websites, presentations in social networks or the use of the aforementioned mobile applications as a communication channel.

The similarity of image strategies is probably influenced by globalization processes. Therefore, far-reaching similarities can be noticed even in the case of distant centers coming from significantly different cultural circles. However, apart from the similarities, the differences should also be emphasized. Some of them result from different sets of advantages that make a given place attractive. The greatest advantage of Malaga seems to be the climatic conditions and natural values, and in the case of Wroclaw, a specific dynamics of the place, manifested by a multitude of events, as well as the dynamic development of the city as a significant academic and business center. Transport messages are related to the advantages of cities. While the slogan "city of meetings" fits in with the character of a place hosting numerous events, the legitimacy of calling Malaga a "city of museums" is questionable, due to the prior preference for the natural values of this place.

Currently, in territorial marketing, the development of interactive activities, both conducted in the virtual world and in urban space, is of decisive importance. Therefore, more and more new tools are used to create an attractive image of the city in the eyes of target groups, i.e. residents, investors and tourists. They can become a link for the local community and an opportunity to influence the personality of the city.

The case study method applied made it possible to collect and critically analyze a lot of information and may constitute a starting point for further quantitative research. The information and analyses contained in this paper and the results of quantitative research may become the basis for modification and, consequently, improvement of the image creation processes of both cities in terms of town design and town communications.

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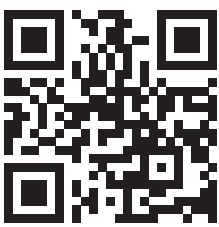

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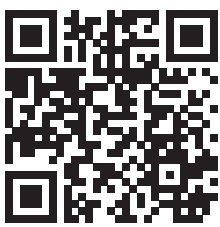

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