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COMPETITIVENESS AND DEVELOPMENT
OF REGIONS IN THE CONTEXT OF EUROPEAN
INTEGRATION AND GLOBALIZATION

STATE – TRENDS – STRATEGIES

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FOREWORD

Under the conditions of market economy, the success, the development and the strength of business entities is determined by their competitive position at a regional, a national, an international and a global level. The principles of market economic order as well as the processes of integration with the European Union necessitate an increase of competitiveness in all areas and cross-sections of the activity conducted, including the regional cross-section. In the 21st century, the strength of Europe's regions is influenced by international conditions, including globalization and international integration.

This Scientific Journal, Organization and Management of the Silesian University of Technology is devoted to these problems that are so important for the development of organizations and regions. The Authors of 19 articles from numerous research centers from all over Poland focus on the problems related to contemporary management, especially in association with the aspect of competitiveness and regional development under the conditions of European integration and globalization. The articles published in this scientific journal resulted from the interests and the research of their Authors. They take up, from a multifaceted perspective, the issues related to: the impact of European integration and globalization processes on the increase in competitiveness and development of regions, the partnership problems in the creation of value for the region's stakeholders, the issues of contemporary logistics in highly industrialized regions, the impact and the role of marketing management on the competitiveness and development of regions and cities.

Krzysztof Andruszkiewicz
Radosław Wolniak

THE ESSENCE AND THE PROCESS OF REGION BRANDING

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Purpose: The main purpose of the article is to explain the basic concepts related to regional marketing and to propound a model of region branding.

Design/methodology/approach: The study incorporates the results of a study on various aspects related to region branding. The process of branding, especially implementation of the region brand, usually is a long and complex undertaking. It certainly should take into account the specificity (nature) of the region. The model proposed in the paper includes the most important and universal aspects of region branding. The following assumptions have been made, which constitute the basis of many such model studies propounded by the authors of foreign and domestic models.

Findings: The process of building a region's image and reputation is associated with its search for ways to present its strengths and the increasingly effective methods supporting development and competitiveness. Region branding and its management has become a phenomenon undertaken quite commonly as to communicate the region's competitive advantages to its internal and external stakeholders. Poland's accession to the European Union meant that native places (regions) should also be recognizable, positively associated, offering above-average values for consumers, tourists as well as Polish and foreign investors.

Practical implications: The strategic plan developed for implementation of the region brand indicates the methods and tools, arranged by functional areas and their initial planning in time. Another challenge that is quite important in the implementation phase is the development of a system for diffusion of the region brand's guiding idea to various institutions, entities and groups that are partners in the region brand implementation program.

Social implications: The main (key) strategic objective of region brand implementation program is to transfer the guiding idea and the knowledge about the program to lower levels, as to facilitate the greatest possible reach and support of local communities.

Originality/value: This paper presents selected results of the study on various aspects associated with regional marketing. One of the research objectives was to build the model of that includes the most important and universal aspects of region branding.

Keywords: region brand, region branding model.

1. Introduction

The literature on the subject so far does not present a unanimous definition of territorial marketing. For the purpose of this article, a description proposed by A. Szromnik has been adopted, who indicates that "territorial marketing is a philosophy of achieving the goals assumed by spatial settlement units, under the conditions of competing for limited resources, at the root of which lies the conviction of a decisive impact on the results of proper client, i.e. partner, orientation" (...) This means that territorial marketing is "a market concept of settlement unit management – as management aimed at satisfying the needs and desires of residents and 'guests', through their initial identification and anticipation of changes, concurrently based on rational use of the resources available" (Szromnik, 2002). It should therefore be assumed that the main objective of region marketing management is to influence the opinions, attitudes and behavior of external and internal groups of interested clients (stakeholders), via marketing instruments and activities. When developing and specifying the main objective, it can be expressed in the form of three strategic goals, i.e. (Andruszkiewicz, 2004):

- development and strengthening of the services provided by public institutions and addressed to residents and business entities;
- region branding and development of a positive region 'image';
- increase of region attractiveness and competitive position (...) within the scope of mutual regional competition.

Territorial marketing is carried out on two target markets. On the internal market, where it covers the community and the entities in a specific region, it is treated as the activities related to the implementation of the region's current and strategic objectives and tasks. On the external market, that is, outside the region, it focuses, inter alia, on promoting the region and on competing with other regions. The main purpose of the article is to explain the basic concepts related to regional marketing and to propound a model of region branding.

2. Region as a product

There is no single commonly accepted definition of a region. Nevertheless, definitions of a region can be found in such scientific fields as economics, ecology, spatial planning, and law. Very often, the understanding of the term *region* boils down to the concept of a conventionally assigned, relatively homogeneous area that is distinguished from the adjacent areas through certain natural or acquired features (Meyer, Milewski, 2009). The concept of a region often can be perceived on two levels:

- the geographic plane (a conventionally assigned, relatively homogeneous area),
- the legal plane (as the name of the administrative division of a larger area).

In the EU terminology, a region is defined as a territory which is characterized by its history, culture, geographic or economic homogeneity, or by all of the features listed, which together provide the inhabiting population with a sense of community, in terms of implementing its plans (Kruczek, Zmysłony, 2010). The concept of a region as a product has long generated much debate among territorial marketing theoreticians. This stems from, *inter alia*, the fact that a region exemplifies a complex product, with a complicated, multi-level internal structure composed of a number of cores. For several years, region was commonly defined as a mega-product. According to A. Szromnik, region as a product entails “specific sets of utility, offered to the customer groups interested against payment, partially against payment or free of charge. (...) It is difficult to speak of one universal territorial product, but rather its several basic types (sub-products) offered to and exchanged with an appropriate, relatively homogeneous group of entities”. Examples of territorial sub-products include such products as: tourism, investments, housing, social products, commercial and service products, educational and cultural ones, fairs and exhibitions, recreation and sports, public products (Szromnik, 2005). An assumption should therefore be adopted that a synthetic territorial product is a composition formed by an overlay of the above-mentioned sub-products, while its features result from their generalization. According to A. Szromnik, a territorial (regional) product "is the cumulative socio-economic utility of a place (area), offered to internal and external customers, to meet their current and developmental consumption and investment needs, including material and spiritual ones" (Szromnik, 2005).

Region as a product can be distinguished on the market based on its uniqueness or exceptional quality of certain features and thus can become, in the opinion of customers (stakeholders), a brand product. The competitive advantage over other regions gained in this way may bring many benefits, such as:

- the prospect of higher sub-product prices;
- increased cognizance and recognition of the region, both at home and abroad;
- increased interest on the part of tourists;
- the region's increased investment attractiveness.

The role of a product (region) marketing strategy is to maintain and stimulate the sources of competitive advantage, expand the groups of the sub-products offered, apply an appropriate pricing strategy, nurse the distinguishing features of the region's sub-products, and promote the region as a product.

3. The essence of region identity and vs. region brand

The building of a region's image and its branding are based on its identity. Region identity is defined as the sum of its characteristic features and the activity that distinguishes it from other (similar) regions. The owner of the brand does not create its image but defines the identity that forms it (Kall, 2006). Region identity is shaped by such elements as (Łuczak, 2011):

- organic components (history, culture, traditions of the region, degree of organization of the region);
- economic components (the economic activities dominating in the region, its economic situation);
- geographical components (geographical location, climate);
- symbolic components (visual identity of the region).

Regional brand managers, through their activity, strive to create the identity desired, i.e. the one they intend to achieve. Region image (the image of the region brand), on the other hand, is only a subjective image of its identity, existing in the minds of the region's internal and external stakeholders. Region image is the sum of the mindsets, opinions and ideas that the recipients have regarding a given place (Kotler, Haider, Rein, 1993). It is also a specific composition of associations, subjective feelings, thoughts and beliefs existing in human minds about a given place (region). The 'quality' of this image, therefore, constitutes an important factor that is taken into account in all the decision-making of its recipients (e.g. Do they want to live in this region? Do they want to relax in the region? Do they want to buy certain products in the region? Do they want to invest in this region?).

In region marketing management, the shaping of region identity and the building of a region's positive image are important tasks for the authorities. A region's positive image is an important identifier and allows it to be distinguished from other regions. It thus plays an important role in marketing activities.

The strategy of building and promoting a given region's brand is becoming increasingly important in regional marketing management. Regional brands, especially the strong ones, take the leading positions among the intangible assets of a region. Well-known and well-recognizable region brands formed as expression of their recognition, owing to their exceptional attractiveness, high quality, predictability of specific events and high certainty of their occurrence, or originality. The image of a region brand should exhibit specific features (Boruc, 2006):

- distinctness and otherness, which will distinguish it from competing regions;
- utility;
- respect and loyalty of consumers;
- the strive to achieve intimacy with its users.

Based on the concept of a territorial brand (country brand), developed by R. Rojek, it can be assumed that a region brand is the image of a region and its inhabitants, in the opinion of recipients, i.e. both the inhabitants and other communities (Rojek, 2007). A region's brand should be recognizable through a set of associations linked to the region, promising specific and highly valued benefits to its recipients. Through the positive and strong associations pertaining to the region's brand, buyers are able to quickly and accurately distinguish the brand from the competing ones, treating it as unique (Kall, Kłeczek, Sagan, 2006). Region branding can be based on the following components (Anholt, 2006):

1. its presence – the city's (region's) international status and position;
2. the place – the physical features of a city (region), in terms of the pleasure associated with travelling to it and being there, its beauty, the atmosphere;
3. the potential – the economic and educational opportunities that the city (region) offers to newcomers, business and immigrants;
4. the soul/the 'pulse' of the city (region) – the lifestyle, leisure possibilities, offers of interesting activities;
5. the people – the residents' hospitality, their attitude towards visitors, the sense of security;
6. the pre-conditions determining the choice of a given city (region) – the basic conditions for a place of residence, accommodation and its price, the standard of public services.

An expressive and strong region brand attracts people and proves the region's sub-products to them. A region's brand can become a "value multiplier and, as such, it provides the owner with a basic competitive advantage, which is just as good as a bank deposit. It can be mortgaged, bought, sold, invested in, its value can be increased or decreased through good or bad management" (Anholt, 2006).

Customers' loyalty to a regional brand, just as their loyalty to consumer product brands, varies. This phenomenon derives from many factors, including the high importance of the region image developed. According to D. Aaker, five customer (stakeholder) attitudes towards a brand can be distinguished (Aaker, 1991):

- the customer changes brands, mainly being driven by the price – no brand loyalty;
- the customer is satisfied – there is no reason to change the brand;
- the customer is satisfied and would incur additional costs by changing the brand;
- the customer values the brand and perceives it as friendly;
- the customer is faithful to the brand.

By analyzing the customer attitudes towards a given brand, its value can be approximated. Specifically, the brand's value (this also applies to regional brands) depends on how numerous are the customer groups that fall into the last three customer segments and what is the total share of these groups.

4. Region branding (a model approach)

The process of branding, especially implementation of the region brand, usually is a long and complex undertaking. It certainly should take into account the specificity (nature) of the region. The model proposed includes the most important and universal aspects of region branding. The following assumptions have been made, which constitute the basis of many such model studies propounded by the authors of foreign and domestic models (Hereźniak, 2011):

- research is the starting point for formulation of a region brand;
- a specific idea that will back the region brand (guiding idea, vision, essence) should be adopted and clearly defined;
- a coherent strategy of objective achievement needs to be developed, the essence of which entails transition from the current (present) image of the region to the state desired.

The model of a regional branding process proposed by the Authors of the article has been developed on the basis of M. Hereźniak's original model of nation branding (Hereźniak, 2011).

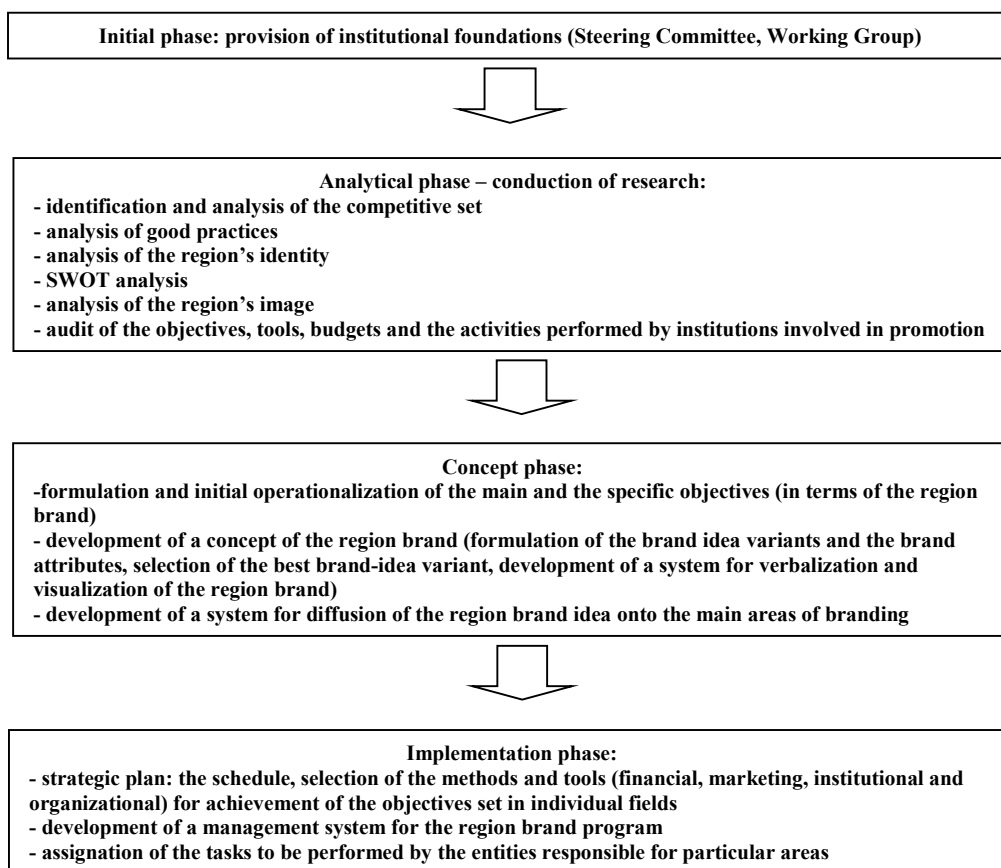


Figure 1. Model of region branding process. Source: own elaboration based on: K. Andruszkiewicz, *Marka regionu jako akcelerator jego konkurencyjności i rozwoju*, „Marketing i Rynek”, 10/2014; M. Hereźniak, op. cit., p.152.

The initial phase of region branding should provide the necessary institutional foundation for the project planned. In this phase, strategic leadership and the program supervision are established. The most important teams in this phase are: the Steering Committee and the Working Group. These bodies consist of the persons who had initiated the region branding program and built an atmosphere of support for it among the regional authorities and the key stakeholders. These teams are responsible for setting up the task teams and the so-called brand champions. The most important tasks and competences of these teams include (Hereźniak, 2011):

1. The Steering Committee:
 - monitors the progress in the program,
 - evaluates the course of its implementation.
2. The Working Group:
 - sets the pace of the work on the program and the work priorities, sets up the task teams, reviews and evaluates the teams' work,
 - develops schedules and prepares reports as well as presentation thereof,
 - controls the budget and the implementation time.
3. The Task Teams:
 - analyze the region's promotional activity in the field of branding,
 - search for initiatives in the field of branding,
 - obtain support and motivate to participate in the project,
 - search for potential so-called flagship brands and high-profile events in the region.
4. Brand Champions:
 - identify valuable initiatives,
 - promote project support,
 - search for 'region brand' program partners and participants,
 - coordinate the work of the task teams.

In the initial phase, the region's branding program should be given an appropriate rank, publicity as well as patronage of important institutions and people in the region.

The analytical phase of region branding aims to provide the necessary information and gather the knowledge needed to begin development of a brand strategy. The research undertaken for this purpose will help develop the initial picture of the situation, organize the knowledge and set the directions for future activity. The following need to be carried out to do so (Hereźniak, 2011):

- identification of the brand stakeholders,
- research among the key recipients, to determine the current internal and external image of the region,
- analysis of the region identity and its comparison with the region image,

- analysis of the region's strengths and weaknesses as well as analysis of the opportunities and threats arising from competing regions,
- specification of the set of directly competing regions and analysis of their image building strategy,
- consolidation and analysis of un/successful cases and successful regional branding practices implemented both at home and abroad.

The concept phase aims to develop, based on previously conducted research and analyzes, a comprehensive national brand concept (strategy). The most important activities in this phase include (Hereźniak, 2011):

- elaboration of the objectives for the region's branding strategy, broken down into main and specific goals, in relation to individual functional areas of the brand,
- development of a comprehensive concept of the region brand, which should include: brand identity, a set of brand values, the brand's positioning and its initial architecture,
- development of guiding idea variants for the brand, based on the overall concept of the region brand.

The guiding idea of the brand should entail a unique and simultaneously a simple thought reflecting that distinguishing feature (or features) of the region, which singles it out as different and exceptional. The guiding idea is relatively constant over time and constitutes the essence of the region brand. A system of marketing communication between the region brand and its stakeholders is then developed on its basis. The guiding idea then allows elaboration of a set of brand attributes. They reflect the most important properties of the region brand, explain it to the recipients, reveal its various aspects, allow for an interpretation of the guiding idea, bringing the brand closer and making it valuable from the perspective of the target groups (Hereźniak, 2011).

The concept phase ends with a design of the visual and the verbal identification of the region brand. Visual identification of the (brand) region usually consists of such elements as: a logo, colors, symbols, typeface and website appearance. Based on these elements, relations with the environment are built and recognition of the region's brand is strengthened. The end result entails elaboration of a 'Brand Book'. It contains all the elements of the visual and the verbal systems. It can also include examples of concepts for practical use of those systems. A 'Brand Book' thus depicts the atmosphere, the personality and the unique style of the region (Hereźniak, 2011).

The final phase of region branding is the **implementation phase**, which mainly is aimed at:

- method design and selection of tools for cooperation with the current and the potential partners to the program,
- assistance, as to prepare these entities for participation in the process undertaken,
- implementation of projects in various fields of the region brand's functioning.

The strategic plan developed for implementation of the region brand indicates the methods and tools, arranged by functional areas and their initial planning in time. Another challenge that is quite important in the implementation phase is the development of a system for diffusion of the region brand's guiding idea to various institutions, entities and groups that are partners in the region brand implementation program. Diffusion of the guiding idea, which is extremely important, means its dissemination and popularization as well as involvement of as many regional entities as possible in the implementation of the project prepared. Brand champions as well as members of the task teams are particularly responsible for this. The main (key) strategic objective of region brand implementation program is to transfer the guiding idea and the knowledge about the program to lower levels, as to facilitate the greatest possible reach and support.

Conclusions

The process of building a region's image and reputation is associated with its search for ways to present its strengths and the increasingly effective methods supporting development and competitiveness. Region branding and its management has become a phenomenon undertaken quite commonly as to communicate the region's competitive advantages to its internal and external stakeholders. Poland's accession to the European Union meant that native places (regions) should also be recognizable, positively associated, offering above-average values for consumers, tourists as well as Polish and foreign investors.

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BIOECONOMY AS AN ECONOMIC AREA INFLUENCING THE ECONOMIC BALANCE OF INTERNATIONAL TRADE IN POLAND

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Purpose: The main aim of the article is to characterize the concept of the bioeconomy from the theoretical point of view and to present its impact on the economic balance of international trade in Poland in 2008-2017. SWOT analysis of the bioeconomy in Poland was presented as an additional aim of the paper.

Design/methodology/approach: The annual reports published by the Central Statistical Office in Poland were used to assess the impact of the bioeconomy on the results of international trade in Poland.

Findings: Based on the analysis, it was found that all areas of the Polish bioeconomy have a positive impact on the level of Polish imports and exports. In the analyzed period the balance of foreign trade has significantly improved, despite the fact that employment in this area has decreased.

Practical implications: Bioeconomy and its areas as a factor positively influencing the development of the whole country should be further developed and skillfully managed while maintaining appropriate means of financing its activities.

Originality/value The article emphasizes the importance of the issue of the bioeconomy and outlines the directions of considerations for further analysis of the studied sector.

Keywords: bioeconomy, development factors, innovation, international trade.

Category of the paper: General review, research paper.

1. Introduction

Today's challenges and problems that the world is facing today make the bioeconomy a major area and a driver of change and innovation in the world and Europe in the coming years. Such challenges include changes in food production and industry, ensuring food security, reducing the level of exploitation of natural resources and minimizing the impact on climate change. The bioeconomy is considered to be a strategic activity that affects the economic

development of all sectors and industries that are responsible for the production, processing and use of biological resources. Biological resources are transformed into high value-added products such as food, feed, bio-products and bioenergy (Czernyszewicz, 2016).

The "Europe 2020" strategy adopted in March 2010 by the European Commission places particular emphasis on the development of the bioeconomy, which includes the production potential of areas of agriculture, forestry, fisheries with aquaculture and coastal economy, renewable energy production (biomass and biotechnology). This area of the EU economy is becoming an indispensable strategy for sustainable economic growth of the whole European Union (Commission communication..., 2012).

The work has an analytical and focused character, which has allowed to focus on the real dimension of the renewable raw materials-based economy while taking into account primary production – referred to as the "old bioeconomy" and aspects of the knowledge-based bioeconomy – referred to as the "new bioeconomy" – the Knowledge Biobased Bioeconomy (Baer-Nawrocka, 2010). The paper covers research on the problems of the bioeconomy in the light of economic results achieved by the European Union and Poland in the field of the bioeconomy and selected areas of the economy. The analysis was carried out using data from the Central Statistical Office in Poland (GUS), the European Statistical Office (EUROSTAT), the Organisation for Economic Cooperation and Development (OECD) and the European Commission. In addition to the analysis of statistical data, the paper uses studies of the subject literature, which consists of scientific articles published in domestic and foreign journals, numerous scientific studies and monographs.

The main aim of the study is to present the bioeconomy from the theoretical point of view and to what extent the bioeconomy affects the level of employment in the bioeconomy sector and its specific areas, added value, turnover value and the achieved results of imports, exports and the balance of turnover in the Polish bioeconomy in 2008-2017. In addition, the factors of development of the bioeconomy in Poland were presented, a SWOT analysis of the Polish bioeconomy was performed and prospects for the future of the Polish bioeconomy were presented.

2. The conceptual apparatus of the bioeconomy

Already in 1977, Nicolas Georgescu-Roegen pointed out the biological limits of growth in the study of economic phenomena. According to Georgescu-Roegen, in the process of analyzing economic processes, it is necessary to understand the biophysical and social context of production, exchange and consumption processes. For the new approach he proposed the name *bioeconomics* (Georgescu-Roegen, 1977). In the literature on bioeconomy and in strategic documents of various national and international organizations there is no uniform definition of

the bioeconomy. The problem with the unambiguous definition of the term "bioeconomy" is related to the twofold approach to its scope (Ratajczak, 2013):

- resource-based (production based on biological resources),
- process based (use of biotechnology).

It was not until the 1990s that the term "bioeconomy" was first defined by two geneticists J.E. Cabot and R. Martinez, who in 1998 defined the bioeconomy as: *an economic activity based on research and implementation focusing on the understanding of mechanisms and processes at the molecular (genetic) level to be implemented and applied in industrial processes that will lead to changes in the global economy and provide the basis for a new sector* (Martinez, 1998). Another definition of the bioeconomy is that proposed by the Government Department for Environment, Food and Rural Affairs (DEFRA), which defines this area of the economy as *an economic activity that captures the hidden value of biological and renewable resources, resulting in better health, growth and environmentally friendly development* (Maciejczak, and Hofreiter, 2013). The Organisation for Economic Cooperation and Development (OECD), in turn, highlights the potential of biotechnology by supporting it with research carried out in the EU Member States (Frascati Manual, 2002). The definition of a bioeconomy proposed by the OECD defines it as an activity that uses biotechnology, bioprocesses and bioproducts to produce specific goods and services (The bioeconomy, 2009). According to the OECD, the bioeconomy includes an area where biotechnology has a significant impact on the country's economic growth. This depends on factors such as (Philp, 2015):

- applying advanced knowledge in the field of genes and cellular processes to develop new products,
- using renewable biomass for sustainable production,
- integration of biotechnological knowledge in multisectoral applications.

In the United States, the bioeconomy has been identified as a priority area to provide great potential for growth and offer great social benefit. According to the U.S. administration, the bioeconomy will improve the health and life expectancy of Americans, eliminate dependence on fossil fuels, change production processes, diversify agriculture, provide new jobs and increase productivity (National Bioeconomy Blueprint, 2012). The White House, in documents published in 2012, defines the bioeconomy as an area based on applying research and innovation in life sciences to fuel economic activity and generate public profits (Pink, and Wojnarowska, 2020). The most comprehensive definition of the bioeconomy was proposed by the European Commission (Directorate General for Science), which covers the social and environmental implications of the bioeconomy. The European Commission defines the bioeconomy as: *an economy based on biological resources originating from land and sea and waste, including waste from food production, used in industry and for energy production. The term also includes bio-processes implemented for green industries* (European Commission, 2012a). In 2018, the strategy for the bioeconomy in Europe was complemented by further

actions aimed at strengthening the relationship between the economy, the environment and society. The *A Sustainable Bioeconomy for Europe: Strengthening the Connection between the Economy, Society and Environment* document emphasizes the interdisciplinary nature of the bioeconomy (Pink, and Wojnarowska, 2020).

The concept of the bioeconomy in various scientific publications is also often referred to as: *bio-based economy*, *biobased economy* or *Knowledge Bio-Based Economy* and is understood as an economy that relies on materials, chemical products and energy that are produced from biological resources (McCormick, 2010). As can be seen when reviewing the literature, there are different approaches to understanding and defining the area of the bioeconomy and the concept itself. Their scope depends on the goals, expectations, values and problems faced by the authors. Undoubtedly, the bioeconomy is one of the answers to the aforementioned challenges and problems of the modern world (Pink, and Wojnarowska, 2020). The economic aspect of the bioeconomy and the areas of the bioeconomy and biobusiness directly refer to the theory of economics. Economics as a science, its scope also deals with the study of the phenomenon of resource limitation and its allocation in agribusiness and biobusiness. Lumin Horlings and Terry Marsden describe the multi-faceted dimension of bioeconomics as a set of economic activities that use biological processes and renewable resources and have a positive impact on the sustainability of the economy (Horlings, and Marsden, 2011). Figure 1 shows the pyramid of biobusiness knowledge (Urban, 2014).

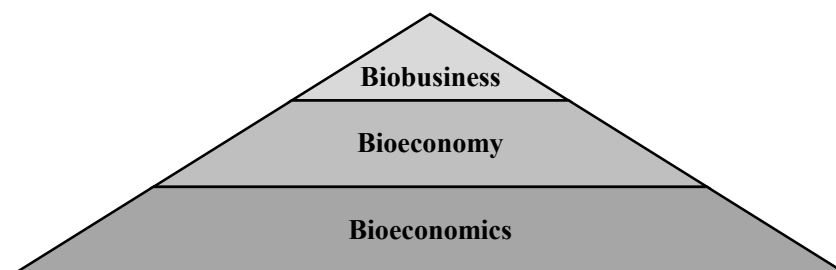


Figure 1. Pyramid of biobusiness knowledge. Source: Urban S., 2014, *Agribusiness and Biobusiness. Theory and practice*, Wrocław University of Economics, Wrocław, p. 243.

The reality of economic life directly affects the theoretical and analytical aspects of the bioeconomy concept. At the same time, the new economic concept of the bioeconomy is not a new practical concept because it was already the dominant economic sector in pre-industrial times. At that time, it was largely represented by agriculture, fishing, forestry and the processing of biological raw materials. Nowadays, the bioeconomy covers not only these natural sectors, but also the areas of processing, industrial production, transport, marketing and consumption, at the same time implying scientific research and innovation. Bioeconomy with its scope and activities includes the "chain of processing and value creation" consisting of mixing products from primary biomass production sectors (by means of processing and distribution sectors) to final users e.g. as food, biomaterials, bioproducts for consumption (Gołębiewski, 2013). A properly constructed system for creating and using knowledge and innovations integrates

three elements of the bioeconomy: biomass production, processing and production, distribution and consumption. Figure 2 shows a simplified scheme of a real bioeconomy system in the European Union (BECOTEPS, 2010).

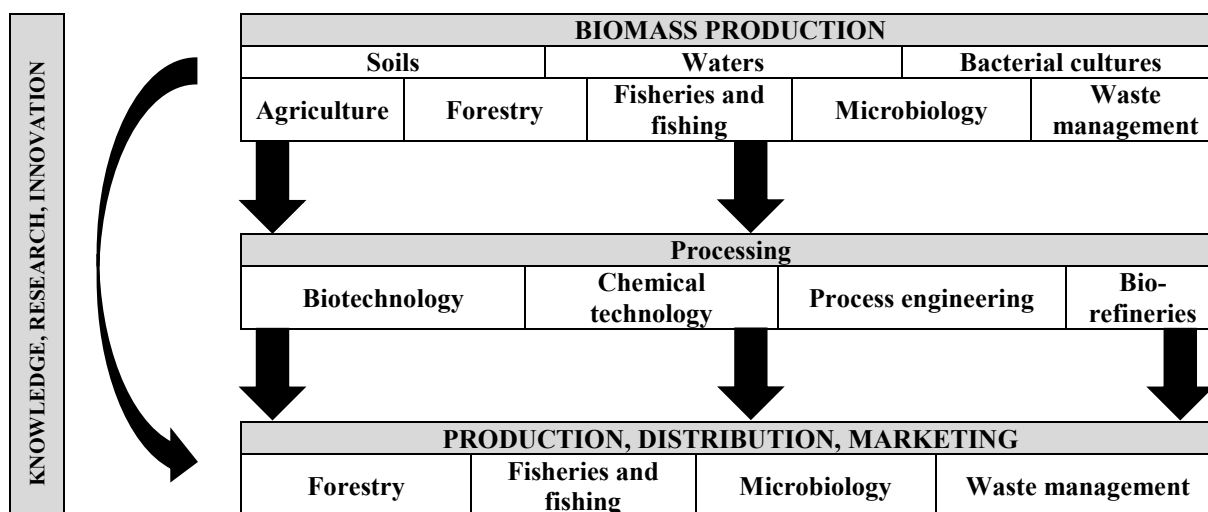


Figure 2. Elements of the bioeconomy system in the European Union. Source: BECOTEPS (2010). Bioeconomy innovation, Bioeconomy Council Report, 2010.

As can be seen in the presented diagram, the basis of the bioeconomy is the production of biomass, which is considered to be a renewable resource and its main application is the production of bio-products, food and biofuels and feeds. Processing of biomass into more valuable and complex products takes place through the application of biotechnology, chemical technologies and physical processes (Adamowicz, 2017).

3. Factors influencing the development of the bioeconomy

The area of the bioeconomy is conditioned by many factors influencing its functioning and development, which is inextricably linked to the application of an innovative approach consisting in the creation of new patterns of effective use of human capital. The potential of human resources, infrastructure and funding opportunities should generate the development of new products and production techniques. Moreover, this potential should affect the synergy of the implemented scientific, scientific-technical, innovation and economic and social policies. Thanks to such cooperation of the above mentioned areas there will be a possibility of more effective production of basic raw materials, semi-finished products and in industries which use biological resources for production. Figure 3 shows the factors of bioeconomy development that indicate that the implementation of research and its implementation in the area of the bioeconomy can effectively support or block its further proper development (Chyłek and Rzepecka, 2011).

Sustainable biological resources	Human capital	Science and research	Availability of innovative solutions
Finance and fiscal system	BIOECONOMY		Legal status
Coherence of scientific and economic policies	Information and modern communication	Consultancy	Infrastructure

Figure 3. Factors influencing the development of the bioeconomy. Source: Chylek E.K., Rzepecka M., 2011, Bioeconomy – competitiveness and sustainable use of resources, "Polish Journal of Agronomy" No. 7, Puławy, p. 8.

Eugeniusz Chylek and Monika Rzepecka (2011) consider biological resources, human capital and the legal status of the country as the most important factors influencing the development of the bioeconomy. According to the authors, the indicated factors are important in the process of research and activities in the area of the bioeconomy. Moreover, an important factor is the fiscal system, which significantly affects the availability of solutions resulting from science and research. It can be predicted that the legal status and rules of financing the bioeconomy and research in its area will require changes in the nearest future. In the process of bioeconomy development it is very important to improve cooperation in science, business and public and private administration. The effectiveness of bioeconomy development is influenced by the principles of implemented policies, especially the coherence of scientific and economic policies.

4. SWOT analysis of the bioeconomy area in Poland

The horizontal nature of the state's scientific, innovation and scientific-technical policy related to the development of the bioeconomy in Poland, as well as any actions taken in its scope, should be preceded and formulated on the basis of thorough analyses – also of the internal and external environment. Already at the stage of initial assumptions related to the undertaken activities should take into account the specific conditions and factors affecting the development of each sector forming the bioeconomy. The modern structure of management and financing of science shapes the policy of the Polish bioeconomy, which may encounter some difficulties related to its development. This is illustrated by the SWOT analysis presented in Table 1, which compares the strengths and weaknesses of the Polish bioeconomy with its opportunities and threats from the external environment. The sooner the Polish bioeconomy removes its unfavorable conditions, the greater the chance for its further development and implementation of the assumed strategic objectives (Chylek, and Rzepecka, 2011).

Table 1.*SWOT analysis of the Polish bioeconomy and the process of shaping its program*

Strengths	Weaknesses
<ul style="list-style-type: none"> - skilled workers - diversified and purposeful research - innovative research actors 	<ul style="list-style-type: none"> - low spending on research and development - insufficient financial resources for "high risk" projects - inadequate division of competences and responsibilities in terms of substantive supervision and research funding - fragmentation of biotechnological innovation in traditional sectors - lack of initiatives and professional structures for knowledge transfer
Opportunities	Threats
<ul style="list-style-type: none"> - preservation of the natural resource base - increase of the importance of sustainable development in the production sector - increase in demand for sustainable production of biofuels - changes in agriculture, small trade, industry and the service sector - increase in research and development spending - increased demand for renewable raw material resources for industries and for material and energy use 	<ul style="list-style-type: none"> - withholding changes necessary to introduce in such systems as: fiscal, financial, legal, administrative and organizational - too slow technological transfer - the objectives of the projects are determined mainly by the scientific community, to a lesser extent they result from the external needs of business entities - insufficient transdisciplinary approach to new solutions

Source: Chylek E.K., Rzepecka M., 2011, Bioeconomy – competitiveness and sustainable use of resources, "Polish Journal of Agronomy" No. 7, Puławy, p. 8.

It should be stressed that the above mentioned SWOT analysis factors for the development of the Polish bioeconomy are only selected ones, as the number of stimulants and destimulants for the development of this sector is definitely higher and depends on the specific industry and area of the bioeconomy.

5. Research material and methodology

The subject of conducted analysis was the assessment of the impact of the bioeconomy on the economic results of the European Union and Poland in the years 2008-2017. The rationale for choosing such a form of research was the multiplicity of the bioeconomy area and its impact on the economic results such as: the level of employment in the bioeconomy sector, including its specific areas, the added value of the bioeconomy and its areas, the value of the turnover of the bioeconomy, the results of imports, exports and the balance of turnover in the Polish bioeconomy, which was achieved by the European Union and Poland in the indicated years. For the purpose of the publication an analysis was carried out to indicate which areas of the bioeconomy achieved the best results in particular years, and which areas achieved worse results compared to previous years. The research was conducted using reports published by the

European Commission, the Central Statistical Office in Poland, the European Statistical Office (EUROSTAT) and the Organisation for Economic Cooperation and Development (OECD).

The countries belonging to the European Union are facing ecological and economic challenges, which forces them to take the concept of future generations' development into account. The main challenge for the countries forming the Community is to achieve a sustainable bioeconomy and independence from fossil fuels and to achieve a situation where agriculture will ensure food security and biomass as a renewable raw material for industry. The great progress and development in natural sciences has made the bioeconomy one of the fastest growing and providing a significant number of jobs in various sectors of the European economy. Table 2 presents employment in the bioeconomy sector in the countries belonging to the European Union between 2008-2017.

Table 2.

Bioeconomy potential of European Union countries in 2008-2017

Specification	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total number of people employed in the bioeconomy	in millions									
	21.2	20.36	20.19	19.77	19.53	19.12	19.09	18.73	18.53	18.64
Number of people employed in the area of:	in millions									
agriculture	11.72	11.43	11.31	10.93	10.81	10.51	10.44	10.1	9.67	9.65
forestry	0.514	0.506	0.49	0.512	0.534	0.524	0.535	0.538	0.533	0.548
fisheries and aquaculture	0.196	0.186	0.183	0.176	0.175	0.180	0.180	0.178	0.182	0.181
food, beverages and tobacco	4.74	4.55	4.64	4.6	4.57	4.55	4.57	4.55	4.77	4.86
biotextiles	1.06	0.91	0.847	0.834	0.793	0.766	0.749	0.731	0.727	0.718
wood products and furniture	1.84	1.68	1.64	1.61	1.55	1.49	1.51	1.52	1.54	1.53
paper production	0.682	0.647	0.641	0.648	0.642	0.632	0.634	0.637	0.643	0.658
chemicals of biological origin	0.424	0.415	0.402	0.414	0.410	0.418	0.419	0.428	0.425	0.444
liquid biofuels	0.025	0.027	0.028	0.031	0.027	0.027	0.025	0.024	0.025	0.024
biofuels	0.007	0.009	0.010	0.017	0.020	0.022	0.024	0.025	0.025	0.026

Source: own study based on: https://ec.europa.eu/knowledge4policy/bioeconomy/topic/economy_en (access: 07.07.2020)

Table 3 presents the added value of the bioeconomy in the European Union between 2008-2017.

Table 3.*Added value of the bioeconomy in the European Union between 2008-2017*

Specification	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total added value of the bioeconomy in the European Union	in billion EUR									
	573	529	567	591	587	597	613	632	640	685
Added value of the bioeconomy in the European Union in:	in billion EUR									
agriculture	170	149	165	176	177	184	184	183	181	203
forestry	21	18	19	23	22	23	25	26	25	26
fisheries and aquaculture	6	6	6	7	6	6	7	7	7	7
food, beverages and tobacco	206	203	212	215	214	219	226	237	243	252
biotextiles	23	19	21	22	21	21	21	21	22	22
wood products and furniture	52	44	47	46	45	44	47	50	51	53
paper production	39	36	39	42	42	41	43	45	46	48
chemicals of biological origin	51	50	52	53	52	51	54	56	57	65
liquid biofuels	2	2	3	3	3	3	3	3	3	4
biofuels	2	2	2	4	4	4	4	5	5	5

Source: own study based on: https://ec.europa.eu/knowledge4policy/bioeconomy/topic/economy_en (access: 07.07.2020)

Table 4 presents the turnover of the bioeconomy in the European Union in the years 2008-2017.

Table 4.*Bioeconomy turnover in the European Union in 2008-2017*

Specification	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total turnover of the bioeconomy in the European Union	in billion EUR									
	2,115	1,928	2,027	2,178	2,212	2,254	2,278	2,323	2,310	2,454
Turnover of the bioeconomy in the European Union in:	in billion EUR									
agriculture	402	360	384	419	428	442	436	436	426	450
forestry	42	36	41	48	46	47	49	50	49	51
fisheries and aquaculture	13	12	13	14	14	14	15	15	15	15
food, beverages and tobacco	1,040	973	1,004	1,067	1,109	1,132	1,145	1,159	1,155	1,242
biotextiles	90	74	78	84	79	79	80	80	79	80
wood products and furniture	187	157	166	172	169	165	174	182	184	188

Cont. table 4.

paper production	166	147	162	177	173	178	180	185	188	196
chemicals of biological origin	158	151	159	168	163	166	168	186	184	198
liquid biofuels	11	10	13	16	15	15	14	13	13	14
biofuels	6	6	7	12	15	15	16	15	14	19

Source: own study based on: https://ec.europa.eu/knowledge4policy/bioeconomy/topic/economy_en (access: 07.07.2020).

Nowadays it is not easy to present the bioeconomy sector and its importance in the structure of the Polish economy, which is due to its complexity and the fact that it is made up of different sections and divisions of the national economy. One of the basic and at the same time the most important measures determining the importance of the bioeconomy in Poland is its share in employment and foreign trade. The basic raw material sectors of the bioeconomy in Poland are: agriculture, forestry, fisheries and aquaculture, food, beverages and tobacco, biotextiles, chemicals of biological origin, liquid biofuels, wood and furniture products, paper and wood production. The number of persons employed in these sectors of the bioeconomy and the overall level of employment in the area of the bioeconomy in Poland in 2008-2017 is presented in Table 5.

Table 5.

Number of persons employed in the area of the bioeconomy in Poland between 2008-2017

Specification	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total number of persons employed in the bioeconomy	number of persons									
	3,049,494	2,922,250	2,815,143	2,787,133	2,724,659	2,611,142	2,601,632	2,636,106	2,524,439	2,492,153
Number of persons employed in the area of:	number of persons									
agriculture	2,128,100	2,033,400	1,934,300	1,921,900	1,865,200	1,772,100	1,721,300	1,762,900	1,615,000	1,562,400
forestry	62,000	56,700	64,900	68,800	73,900	71,900	76,700	71,500	76,700	87,700
fisheries and aquaculture	6,300	5,300	4,700	4,000	6,800	8,700	6,300	7,500	9,300	9,800
food, beverages and tobacco	445,337	436,448	430,090	419,832	422,246	410,316	418,430	423,197	428,852	434,196
biotextiles	97,293	83,041	75,502	70,883	65,103	59,509	59,990	59,441	60,126	59,515
chemicals of biological origin	22,291	22,451	22,330	21,448	20,942	20,412	20,982	21,604	22,009	21,698
liquid biofuels	2,545	3,008	2,494	3,415	4,947	4,747	4,737	4,880	4,908	2,948
biofuels	693	1,033	1,687	1,914	2,479	1,929	2,247	2,021	1,627	1,327
wood products and furniture *	.	.	.	.	.	.	.	.	.	.
paper production *	.	.	.	.	.	.	.	.	.	.

* no data available

Source: own study based on: https://ec.europa.eu/knowledge4policy/visualisation/bioeconomy-different-countries_en (access: 07.07.2020).

Table 6 presents the total turnover of the Polish bioeconomy and its individual sectors in 2008-2017.

Table 6.

Polish bioeconomy turnover in 2008-2017

Specification	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total turnover of the Polish bioeconomy	in million EUR									
	103,376	86,698	95,782	105,918	111,400	114,313	116,829	117,187	117,938	130,430
The value of turnover of the Polish bioeconomy in:	in million EUR									
agriculture	24,175	19,312	21,902	25,611	25,939	26,763	26,556	24,491	24,513	28,265
forestry	2,388	1,882	2,227	2,654	2,612	2,677	2,867	2,959	2,950	3,315
fisheries and aquaculture	112	103	131	123	131	149	149	142	166	153
food, beverages and tobacco	52,584	44,824	48,419	52,547	56,903	58,025	58,239	58,512	59,206	65,661
biotextiles	2,348	1,740	1,856	1,986	1,952	1,942	2,082	2,172	2,252	2,356
chemicals of biological origin	2,891	2,685	3,312	3,056	3,173	3,279	3,396	3,592	3,487	3,586
liquid biofuels	401	379	406	605	1,038	735	905	1 045	1059	769
biofuels	180	278	344	427	579	444	549	519	371	312
wood products and furniture *	.	.	.	.	.	.	.	.	.	.
paper production *	.	.	.	.	.	.	.	.	.	.

* no data available

Source: own study based on: https://ec.europa.eu/knowledge4policy/visualisation/bioeconomy-different-countries_en (access: 07.07.2020).

Table 7 presents the added value in the Polish bioeconomy and its individual sectors in 2008-2017.

Table 7.

Added value of the Polish bioeconomy in 2008-2017

Specification	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total added value of the bioeconomy in Poland	in million EUR									
	26,450	23,070	24,963	27,361	26,071	27,884	28,047	27,636	28,643	33,403
Added value of the bioeconomy in Poland in:	in million EUR									
agriculture	8,216	6,968	8,188	9,383	9,154	10,082	9,337	8,064	8,665	11,331
forestry	1,023	865	1,040	1,333	1,160	1,205	1,343	1,328	1,397	1,447
fisheries and aquaculture	47	47	56	52	60	58	61	80	93	85

Cont. table 7.

food, beverages and tobacco	10,070	9,147	9,191	9,807	9,332	9,498	9,768	10,291	10,475	12,202
biotextiles	882	638	674	666	589	614	664	673	693	718
chemicals of biological origin	1,006	838	992	940	805	1,007	890	953	910	931
liquid biofuels	87	71	75	122	151	161	150	153	167	90
biofuels	62	115	155	193	261	194	244	237	156	139
wood products and furniture *	.	.	.	.	.	.	.	.	.	.
paper production *	.	.	.	.	.	.	.	.	.	.

* no data available

Source: own study based on: https://ec.europa.eu/knowledge4policy/visualisation/bioeconomy-different-countries_en (access: 07.07.2020).

A special role in the Polish bioeconomy sector is played by the processing industry – mainly the food industry. A great importance is attached to the results of foreign trade turnover (export/import) of products coming from this sector, such as: food products, live animals and products of animal origin, products of plant origin and fats and oils. Table 8 presents statistical data on import, export and foreign trade of these bioeconomy sectors in the years 2008-2017.

Table 8.

Results of imports, exports and balance of turnover in the Polish bioeconomy in 2008-2017

Specification	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
	in million PLN									
Import	497,02 8.3	463,38 2.6	536,22 0.6	62,337 2.7	648,12 7.6	656,09 8.2	704,56 7.5	740,97 3.3	786,47 0.1	880,07 8.4
including:										
Food preparations	13,936. 4	16,559. 2	18,141. 5	20,684. 5	23,225. 0	23,688. 8	25,589. 6	28,150. 2	30,183. 1	32,931. 9
Live animals and products of animal origin	8,827.0	11,035. 3	11,856. 0	13,469. 0	15,296. 2	18,026. 3	18,963. 6	18,890. 8	22,237. 4	24,007. 4
Products of plant origin	11,161. 2	10,738. 9	11,647. 0	14,352. 9	14,998. 8	14,885. 6	15,610. 8	17,105. 7	19,120. 8	21,259. 5
Fats and oils	2,005.2	1,760.7	2,002.0	3,145.5	3,491.4	3,203.0	3,149.7	3,068.8	3,629.2	4,163.4
Specification	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
	in million PLN									
Export	40,538 3.1	42,324 2.0	481,05 8.2	558,73 9.0	603,41 8.6	647,87 8.8	693,47 1.6	750,83 5.8	803,47 7.8	882,61 9.5
including:										
Food preparations	1,8023. 7	22,728. 7	24,854. 4	28,892. 7	34,069. 3	38,003. 1	41,994. 0	46,998. 0	51,023. 4	59,285. 2
Live animals and products of animal origin	1,4239. 9	15,666. 8	18,033. 1	21,239. 0	24,523. 3	27,768. 3	29,115. 6	30,491. 7	32,832. 4	38,670. 7
Products of plant origin	7,498.2	10,116. 0	9,803.6	1,0754. 3	14,854. 1	17,288. 9	17,976. 8	19,808. 8	19,222. 6	18,922. 2
Fats and oils	1,061.1	1,105.1	1,288.6	1,528.4	1,728.8	2,342.7	2,422.2	2,567.2	2,703.3	1,869.1

Cont. table 8.

Specification	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
	in million PLN									
Turnover balance	- 9,1645. 2	- 4,0140. 6	- 5,5162. 4	- 6,4633. 7	- 4,4709. 0	- 8,219.4	- 1,1095. 9	9,862.5	1,7007. 7	2,541.1

Source: own study based on CSO reports – Statistical Yearbook of Agriculture in 2008-2017.

Figure 4 presents the trend line and dynamics of Polish import and export results in 2008-2017 (in billion PLN).

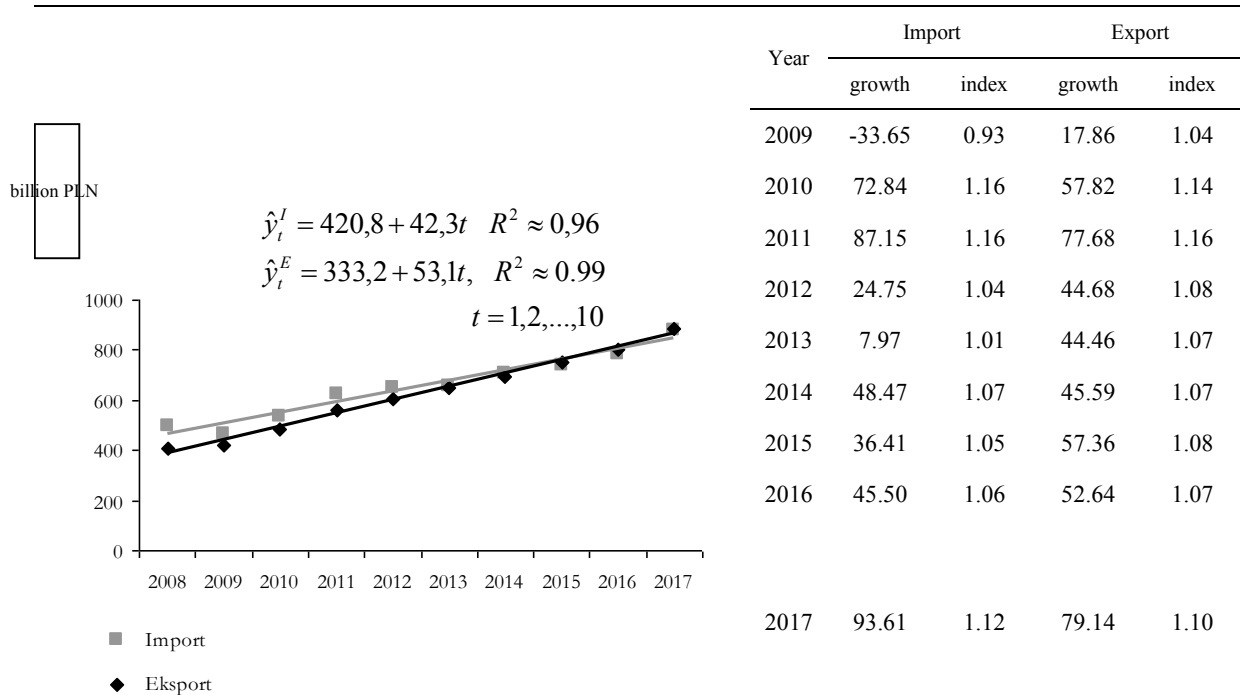


Figure 4. Import and export result dynamics in the Polish bioeconomy in 2008-2017 (in billion PLN) with adjusted trend line. Source: own study based on Table 8.

In addition, Table 9 presents the balance of turnover in the Polish bioeconomy in the years 2008-2017 (in billion PLN).

Table 9.

Balance of turnover in the Polish bioeconomy between 2008-2017 (in billion PLN)

Year	Total	including			
		food preparations	live animals and products of animal origin	products of plant origin	fats and oils
2008	-91.65	4.09	5.41	-3.66	-0.94
2009	-40.14	6.17	4.63	-0.62	-0.66
2010	-55.16	6.71	6.18	-1.84	-0.71
2011	-64.63	8.21	7.77	-3.60	-1.62
2012	-44.71	10.84	9.23	-0.14	-1.76
2013	-8.22	14.31	9.74	2.40	-0.86
2014	-11.10	16.40	10.15	2.37	-0.73

Cont. table 9.

2015	9.86	18.85	11.60	2.70	-0.50
2016	17.01	20.84	10.60	0.10	-0.93
2017	2.54	26.35	14.66	-2.34	-2.29

Source: own study based on Table 8.

6. Results and discussion

The total employment in the bioeconomy sector in the European Union decreased from 21.2 million in 2008 to 18.64 million of persons employed in the bioeconomy in 2017. This represents a 12.1% decrease in employment in the analyzed period. The total number of persons employed in the bioeconomy sector in Poland in the years 2008-2017 also decreased by 557 341 persons in 2017 (2.5 million) compared to 2008 (3.05 million), which is a decrease of 18.28% in the analyzed period. The areas of the bioeconomy where employment increased in 2017 compared to 2008 in the European Union were: forestry, food, beverages and tobacco, chemicals of biological origin and the area of biofuels. The areas where employment decreased were: agriculture, fisheries and aquaculture, biotextiles, wood products and furniture, paper production, liquid biofuels. The added value of the bioeconomy in the European Union between 2008 and 2017 is much better in the analysis. In 2017 the total added value in the European Union increased from EUR 573 billion in 2008 to EUR 685 billion, which is an increase of 19.54%. In the case of the added value of individual areas of the bioeconomy in the European Union, the value reduction occurred only in the area of biotextiles (from 23 billion in 2008 to 22 billion in 2017). In the other analyzed areas there was an increase in added value.

A similar situation occurred in the case of the bioeconomy's turnover in the European Union. The total turnover of the bioeconomy increased by EUR 0.339 billion during the period under review, an increase of 16.02% in 2017. (EUR 2.454 billion) compared to 2008. (EUR 2.115 billion). Again, the decline in turnover occurred only in the area of biological textiles and amounted to EUR 10 billion (11.12%) between 2008 (EUR 90 billion) and 2017 (EUR 80 billion).

Analyzing the importance and development of individual sectors of the Polish bioeconomy, it is important to emphasize the large growth in employment in such areas as: forestry (41.45% increase), fisheries and aquaculture (55.55% increase), liquid biofuels (15.83% increase) and biofuels (91.48% increase) in the analyzed period. The areas where employment decreased were: agriculture, food, beverages and tobacco, biotextiles, chemicals of biological origin.

In the mentioned years, the results of turnover in the Polish bioeconomy in general and in all individual sectors of the bioeconomy were very good. The total turnover volume between 2008 and 2017 increased from EUR 103,376 million in 2008 to EUR 130,430 million in 2017,

which represents an increase of 26.17%. As far as the added value of the Polish bioeconomy in the period 2008-2017 is concerned, only two sectors recorded a lower value in 2017 compared to 2008. These were biotextiles and chemicals of biological origin. The total added value during the period was positive and reached EUR 33,403 million in 2017 (2008 = EUR 26,450 million). The increase of EUR 6,953 million was 26.28%. For the Polish sectors: wood products and furniture and paper production, no official data were provided.

An important feature of the Polish foreign trade is achieving better and better results in the years under review, both in the case of import and export. The value of the Polish bioeconomy's import in 2017 reached PLN 880,078.4 million, which is an increase of PLN 383,050.1 million compared to 2008, when it reached PLN 497,028.2 million. A similar situation occurred in the case of Polish export in the area of the bioeconomy. In 2017 the value of export amounted to PLN 882,619.5 million, which is an increase of PLN 477,236.4 million compared to 2008 (PLN 405,383.1 million). Positive results were also achieved in individual areas of the Polish bioeconomy. Table 10 presents a comparison of results achieved in 2017 with 2008 in particular areas of the bioeconomy and the dynamics of changes in their value.

Table 10.

Import and export results of particular sectors forming the Polish bioeconomy in 2008 and 2017

Specification	Value in 2008 (A)	Value in 2017 (B)	Change (B-A)	Dynamics 2008 = 100
Import, including:				
Food preparations	13,936.4	32,931.9	18,995.5	236.30
Live animals and products of animal origin	882.0	24,007.4	23,125.4	2,721.92
Products of plant origin	11,161.2	21,259.5	10,098.3	190.47
Fats and oils	2,005.2	4,163.4	2,158.2	207.63
Export, including:				
Food preparations	18,023.7	59,285.2	41,261.5	328.92
Live animals and products of animal origin	14,239.9	38,670.7	24,430.8	271.56
Products of plant origin	7,498.2	18,922.2	11,424	252.35
Fats and oils	1,061.1	1,869.1	808	176.14

Source: own study based on Table 8 in million PLN.

As it can be observed, the growth dynamics in each of these areas is positive and the highest score in the area of the import in 2017 compared to 2008 was achieved in the area of "live animals and products of animal origin" and was over 2700%. In case of export, the highest growth rate in 2017 was almost 329% in the area of "food preparations".

7. Summary

For the proper development of the bioeconomy in the European Union, it is necessary to increase the amount of funding for research and development and to increase the importance of knowledge and innovation in the development of entrepreneurship, while taking into account the needs of consumers and increasing market opportunities. Moreover, it is very important for various entities to cooperate in order to implement pro-innovative policies in the functioning of the bioeconomy. Such actions require close cooperation between public administration employees, universities and entrepreneurs. The big challenge for the bioeconomy is the estimated growth of the world population over the next 30 years by more than 30% (from 7 billion in 2012 to more than 9 billion in 2050) (European Commission, 2012).

Nowadays, the great interest and importance of the bioeconomy is confirmed by the constantly growing number of books and scientific articles containing such terms as: *bioeconomy*, *bio-economy*, *bio-based economy*, *biobased economy*, especially in titles, abstracts, and keywords (Staffas, and Gustavsson, and McCormick, 2013).

The analysis of the results of Polish import and export and their steady growth presented in the paper may prove the growing importance of the bioeconomy in the whole economic system of Poland. Despite performing a partial analysis of the bioeconomy, this area should be constantly researched and analyzed as a whole using the concept of sustainable development. The bioeconomy as a "new type" of economy must simultaneously solve environmental problems and provide bio-products such as food, feed, fibers and fuels. This requires a new organization of the economy and financing of biotechnological research together with the design and production of market products.

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MARKETING OF BORDER TOWNS ON THE EXAMPLE OF SELECTED DESTINATIONS IN THE BORDERLAND OF THE CZECH REPUBLIC AND POLAND

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Purpose: The paper aims to identify the extent to which city marketing has been implemented in selected Czech cities in the Moravian-Silesian Region as well as the tools that are used for managing city development.

Design/methodology/approach: The research was carried out in the following cities of the Czech Republic: Bohumín, Bruntál, Frýdek-Místek, Krnov, Opava, Ostrava and Třinec. The respondents were representatives of municipal authorities, and the method of individual in-depth interviews (IDI) was used.

Findings: Territorial marketing is going through various phases in its evolution. It is constantly being enriched with new forms and tools of communication with the environment, including those related to modern Internet media and innovative mobile applications. The authorities of the cities subjected to in-depth analyses are aware of the challenges ahead. Competition for limited resources, such as investor funding or tourism income, will be won by those cities whose authorities manage to develop and implement effective marketing strategies ahead of their rivals.

Originality/value: The article discusses the advancement of selected place marketing tools used in the four analysed towns in the Polish-Czech borderland.

Keywords: City marketing, place marketing.

Category of the paper: Research paper.

1. Introduction

Marketing is a concept oriented to the market, in which at least three elements, two market entities which are parties in an exchange (suppliers and customers) and the object of exchange (products), are essential for an exchange process to occur (Łazorko, Niedzielska, 2011, p. 15). Market orientation means that all activities in the area of place marketing should be based on

the requirements, needs, preferences and expectations of various groups of stakeholders connected with a given territorial unit (Makarski, Kuźniar, 2009, p. 28). Contemporary territorial units such as cities, municipalities and regions constantly compete with one another, just like companies do. For the purpose of this competition, their authorities use a wide spectrum of tools, the effectiveness and efficiency of which is determined by many factors (Ciechomski, 2017, p. 120). In the reality of globalization, the expansion of modern telecommunication and information technologies, the expansion of social media as well as other profound socio-economic changes, local governments are faced with a number of new challenges related to the optimization of promotional activities.

2. City marketing

The idea of city marketing management is not new. One of the first marketing theorists to describe the specificity of city marketing was Philip Kotler. He studied the activities of non-profit institutions and defined place marketing as a set of activities that can create, maintain and change attitudes or behaviours towards selected destinations. The aim of place marketing understood in this way should be to attract new residents, tourists as well as investors (Toporská, 2015, p. 33).

City marketing can also be defined as a concept supporting the cooperative and creative development of cities, aimed at increasing the attractiveness of a city in a predefined area (Rumpel, 2002, p. 177). The purpose of its implementation is to increase the quality of services provided to selected target groups of the population. This task should be achieved through institutionalized communication and by developing partnerships between the interested parties.

The development of city marketing is determined primarily by the constantly deepening and intensifying competition between cities. This requires local governments to undertake certain actions which take into account the preferences and expectations of their customers, i.e. the target groups (residents, tourists, and investors). Czech author J. Ježek reports that almost 75% of cities use city marketing (Toporská, 2015, p. 33).

Groups of internal and external stakeholders which are of particular importance with regard to city marketing are presented in Figure 1. These groups of stakeholders are the target markets for place marketing activities. Identifying these groups is crucial for the effective creation of a city's offer (Ciechomski, Romanowski, 2016, p. 82).

Internal stakeholders	External stakeholders
<ol style="list-style-type: none"> 1. Permanent and occasional residents (students, seasonal workers) 2. Local entrepreneurs and investors 3. Members of local authorities 4. Employees and activists of local government at various levels 5. Employees of public utility companies and institutions 6. Local organizations and institutions 7. Representatives of other local lobbies 	<ol style="list-style-type: none"> 1. Domestic tourists 2. Foreign tourists 3. Potential residents 4. Short-term visitors 5. Domestic and foreign entrepreneurs 6. Domestic and foreign investors 7. Highly-qualified employees 8. Central authorities 9. Government organizations and agencies 10. National and foreign institutions

Figure 1. Stakeholder groups in city marketing. Source: own compilation based on: Florek, 2006, p. 76.

The most important entities in a settlement unit are the residents, as they co-create the local market. Nevertheless, territorial marketing cannot be limited only to this group of stakeholders (Ciechomski, Romanowski, 2013, p. 63). Targeting the offer, which in the case of a territorial unit is very wide, at correctly identified market segments determines the effectiveness of marketing activities. In city marketing, the customers are the entities that “buy” the idea, the image, the future benefits, or the possibility of settling down or running a business in a given destination. The most important customers of a territorial unit include potential entrepreneurs who want to set up an enterprise in a given area, and potential investors who are willing to address such needs as access to up-to-date and reliable information; the proper functioning of public institutions; technical infrastructure; the development of business-related initiatives; the creation and development of various projects and innovative initiatives in a given area, etc. Potential investors, for example those in the financial and housing markets (including developers), expect the authorities to be cooperative, to efficiently prepare the necessary documentation, e.g. local development plans, and to offer them other incentives, for example tax relief (Duczkowska-Piasecka, 2013, p. 145).

When considering the tasks of marketing, it is often emphasized that it plays a strategic role in the activities undertaken by local governments with regard to the functioning of modern cities and regions. Constant development of urban organisms and of the forms and instruments of communication with stakeholders is both a priority and a necessity. A city or municipality must adequately respond to new challenges and conditions, which in practice means that at the appropriate time the authorities should identify possible opportunities and threats, and be prepared to take both anticipatory and remedial actions (Striš, Vodák, Kubin, 2009, p. 390).

3. Stages in the development of city marketing

The phases in the development of city marketing are presented by J. Ježek. These are based on the work of Kravatzis (2005), who distinguished the following three development phases of city marketing:

1. The phase of fragmentary promotional activities.

During this period, often referred to in the literature as the “first generation”, marketing in cities was used to attract new residents, investors and tourists; and through the use of simple promotional tools highlighted specific attractions of the city, for example the low cost of living.

2. The phase in which marketing mix tools are gradually included in city marketing.

Identity and image become crucial in this phase of city marketing, because not only creating but also maintaining a positive image of the city are perceived as an important tool for attracting selected target groups to the city.

3. The branding phase.

Branding, i.e. creating a city's brand, is the last phase in the development of city marketing. In this case, the various actions undertaken as part of place marketing are aimed at creating the city's brand that aims to foster emotional and psychological bonds with the city. Although place branding is a relatively well-known concept abroad, in the Czech Republic many city officials are still not familiar with it, or understand this concept in a different way. This issue will be discussed in more detail later in this paper. Even if the authorities of some cities work on the implementation of place marketing activities, their actions are often incoherent, selective and incomplete (Ježek, 2010, p. 123).

The three phases of city marketing mentioned above indicate a long-term trend, according to which the implemented activities become more focused and specialized with each successive phase.

Despite significant progress in developing the discipline of city marketing, it has still not been possible to determine all the theoretical criteria that would lead to it being established as a new sub-discipline within marketing. Nevertheless, some authors agree that general marketing knowledge cannot be simply transferred to city marketing mechanically and without modifications (Toporská, 2015, pp. 38-39). In the literature devoted to this concept, there are many studies that explain its theory, but none of the works describes the issue in a complete and comprehensive manner. Some attempts to comprehensively explain city marketing are more utilitarian, while others are more theoretical and try to explain its complex structure.

4. City brand and its positioning in the consciousness of promotion-mix recipients

A city's brand should promise benefits to its recipients – residents, tourists and investors – through a set of associations related to the city. A city brand is based on the following components:

1. Destination – physical attributes of the city, its location, beauty, and climate;
2. People – hospitality of the residents, their empathy and attitude towards visitors, a sense of security, openness to people with a different skin colour, language, religion or views;
3. Potential – infrastructural, economic and educational chances and opportunities offered by the city to investors, newcomers, immigrants and other stakeholders;
4. Standing – international status and position of the city;
5. Living conditions – the standard of public services, including transport;
6. Lifestyle – leisure options, environmental and cultural assets.

The above elements combine to produce a subjective perception of a city's image, which is an unstable, internally complex and individualized category. To diagnose the actual image of a given territorial unit it is necessary to implement professional marketing research on a representative scale rather than only diagnostic surveys, which should be carried out among different groups of stakeholders, such as present and potential residents, investors, tourists and others. The identification of the existing city image should include the following elements:

- determining the target image, including a comparison of the city's image with images of its competitors based on benchmarking principles;
- determining the recipients of the city's promotional activities;
- selecting appropriate image-mix tools;
- appointing the people and units responsible for the implementation of tasks related to shaping the image;
- monitoring the activities related to developing and shaping the city's image.

The benefits of creating the image and positioning the city brand in the perception of the recipients of promotional activities include standing out from competitors, facilitating information processing as well as shaping positive attitudes towards a given destination (Ciechomski, 2019, p. 57). The main task of positioning is to consolidate a favourable image distinguishing a given city from other agglomerations. It must be remembered that municipalities, cities, districts and regions compete with one another not only for investors and tourists, but also for highly qualified employees and residents who pay taxes and identify with the place; in other words, they compete for a whole range of tangible and intangible resources.

5. Analysis of research results on the use of city marketing tools in selected Czech destinations

The methodological procedures used in empirical research were inspired by existing work. The research methodology is based mainly on the works of Ježek (2005, 2010) and Rumpel (2002). Other works important for this research are monographs by Karavatzis (2004, 2007, 2009) and Anholt (2007, 2010). The research was carried out as part of a diploma dissertation

by Pavlína Toporska, a student of Přírodovědecká fakulta Univerzity Karlovy in Prague. In the empirical part of the work, an attempt was made to assess the use of city marketing tools in a predetermined area based on individual in-depth interviews (IDI) with representatives of the authorities of selected cities. Research targets were formulated, followed by specific research problems. The formulated research questions serve to obtain answers relating to several important areas which are at the core of contemporary city marketing practice. Most of these questions follow from both literature studies and earlier empirical research. The principal research questions included the following issues:

1. To what extent is city marketing already present in cities?
2. What are the main problems of the cities as defined by experts?
3. Are the surrounding cities competitors?
4. Which cities cooperate with the private sector and investors, and in what ways?

For the purposes of source research, a structured questionnaire was developed for interviews with respondents, who were the representatives of city authorities. A total of 12 Czech cities from the Moravian-Silesian region were included in the research. The intention was to find out how city marketing is perceived in cities of a similar size, characterized by a similar level of socio-economic development and located in the Moravian-Silesian region. In the end 7 representatives of cities submitted exhaustive answers, and this self-selection is interesting in itself. It can be philosophically observed that a lack of response is also a certain response. Also, some respondents wanted to receive the questionnaire in advance and to be able to answer the questions only in writing.

The research aimed to assess to what extent city marketing had been implemented in the cities of the Moravian-Silesian region; which tools of city marketing can be used to manage the development of a city; which cities use them; and how they evaluate those tools.

The questionnaire contained a total of 14 questions designed to check the extent to which the representatives of cities are familiar with the concept of city marketing. The questions related to general knowledge about city marketing; the segmentation of target groups and ways to communicate with them; problems with city development; marketing activities undertaken, for example, as part of cooperation with the private sector; supporting investment; and event marketing.

The research was conducted in the Czech Republic in the following cities of the Moravian-Silesian region: Bohumín, Bruntál, Frýdek-Místek, Krnov, Opava, Ostrava and Třinec. For the purposes of this article, the results for the border towns of Bohumín, Opava and Třinec and the provincial capital of Ostrava are presented. The location of the region and the cities are shown on the maps below (Figure 2 and 3).



Figure 2. Location of the Moravian-Silesian region in the Czech Republic. Source: own compilation based on bing.com/images.



Figure 3. Location of the cities of Bohumín, Opava, Trinec and Ostrava, where the research was conducted. Source: own compilation based on bing.com/images.

Bohumín is one of the most important railway junctions in the Czech Republic. It is located in Karvina district and according to recent data has a population of 22,000. Together with Ostrava and other nearby cities, Bohumín can be considered as the industrial centre of the region. The largest local enterprises include Rockwool, Bohumín ironworks, Biochemie and others.

Opava is the sixteenth largest city in the Czech Republic in terms of population (58,000). The history of this important centre of Czech Silesia dates back to the 13th century. Today, the city is the economic centre of the entire micro-region, with some important companies based there: Ferram Strojírna, the food company Mondelez Czech Republic, the pharmaceutical company Teva Czech Industries, Model Obaly, and Optys. The city of Opava is now the seat

of the University of Silesia, one of the state universities in the Moravian-Silesian region. In addition to being a historical city, Opava is also a commercial centre of the Czech part of Silesia as well as one of the most attractive cities in the Moravian-Silesian region. This is due to a number of events that are regularly held there (Bezručova Opava, European Heritage Days, Majáles at the University of Silesia, the Opava Cultural Summer, and others).

Třinec is the second easternmost city in the Czech Republic. It has a population of around 37,000 inhabitants and is located about 30 km from Ostrava. Třinec is an industrial city, being the seat of Třinecké železářny, the Třinec Iron and Steel Works, which produces over a third of all steel in the Czech Republic (around 2.5 million tonnes per year). Despite the fact that the company is one of the major employers in the region and an important partner of the city, it is also a major air polluter. As a result, the quality of the natural environment is one of the city's greatest problems. Třinec, like the other destinations that participated in the study, supports business, for example by promoting the local Balina industrial zone. The city also accommodates many tourists, despite not being a typical tourist place. This is due to its closeness to the Moravian-Silesian Beskids, which are the primary destination for tourists visiting the region. In addition, the city regularly hosts various events which involve not only local residents. The most famous of these are the Cultural Summer and Holidays in Třinec.

Ostrava is the capital city of the Moravian-Silesian region and has a population of almost 300,000 residents. Ostrava, like the entire Moravian-Silesian region, has long struggled with the structural problems of a post-industrial agglomeration. Some of the largest companies in the region, such as ArcelorMittal Ostrava or Vítkovice Steel, are located here, but their production is gradually being reduced. It is also necessary to transform the brownfield land in the Dolní Vítkovice area, which has become the first Czech industrial heritage site on the European cultural heritage list. The image of the city is enhanced not only by the Colours of Ostrava music festival, but also by other events such as Maj Janačka, the Summer Shakespeare Festival, and the Golden Stirrup athletics meeting.

The next part of this article analyses the respondents' answers given to the questions during in-depth interviews. The first question asked what tools the city authorities use when planning the city's development. Each of the cities participating in the study has a strategic development plan, which is constantly being updated. Actions related to crime prevention are perceived as particularly important for the development of the city, especially in Třinec and Bohumín, where they help, for example, to tackle problems with people of Romani origin living in city shelters. The city of Opava has developed an Integrated City Development Plan, as well as a strategy for foreign cooperation, a cultural development plan and a concept of funding for sports.

The aim of the second question (If you do not know the concept of city and regional marketing, what do you think it can be?) was to find out how the city authorities identify the categories of city and regional marketing. All the respondents replied that they know the concept, but sometimes use other terms to describe it. The results of the interviews also showed that the application of city marketing is now more comprehensive than it was in previous years.

The research confirmed that city authorities treat city and regional marketing as a comprehensive approach that helps to solve the current and future development problems of cities and municipalities.

In question 3 the respondents were asked about the target groups on which they focus their marketing activities. The research showed that city authorities and the employees of the appropriate departments and organizational units often segment the recipients of marketing, and many of their activities focus on specific groups of people. Usually, however, this happens inadvertently as many employees of city offices do not realize the importance of segmenting the recipients of promotional activities. The recipients of marketing activities mentioned in the interviews included entrepreneurs, visitors, associations, interest groups, seniors and families. In addition, the authorities of Bohumín emphasized that they are currently concentrating on stopping or slowing down the emigration of young and educated residents.

Communication between cities and their inhabitants or other target groups is very important. All the surveyed respondents are aware of this. One of the problems identified in the study is the low interest in city council meetings, which only a few residents regularly attend. Nevertheless, personal communication is important for cities and all the respondents emphasised this. It is also worth mentioning the e-info service, which has been operating in Bohumín since 2002. Residents registered on this application are informed by e-mails and text messages about road closures, power and water outages, as well as planned cultural events. The respondents mentioned the following tools and channels of communication with target groups: personal meetings, Internet media, television, newspapers, employee committees, meetings with entrepreneurs, surveys, city notice boards, office notice boards, city information centres, billboards, CLV banners (City Light or City Light Showcase), advertising posters and other media.

Question 5 asked about the main problems concerning the city's development. The conducted research identified such threats as soil, water and air pollution, which mainly affect Třinec and Bohumín. In addition, the respondents mentioned a decline in population (Bohumín), a shortage of jobs, no city bypass (Opava), a shortage of parking spaces (Třinec), and industrial pollution (Ostrava). The respondents also complained about a poor connection with the motorway network of the Czech Republic, inadequate access to public places for disabled people in wheelchairs, and a long-term negative image of the city. A pressing problem was also the insufficient interest of central institutions in the eastern region of the country, which is struggling with many issues that need to be addressed. City officials are also aware that attracting investors is often hindered by the fact that their communications are not comprehensive and effective enough to attract entrepreneurs.

In question 7 the city authorities were asked what they are proud of. The following responses were obtained:

1. Bohumín: modernization of the housing stock; flood protection; city image; development of sports facilities; public awareness; good financial condition; success in obtaining subsidies; urban infrastructure; aesthetic public space.
2. Opava: connection to the motorway network; promotion of retail trade.
3. Třinec: modernization of the library, Via Lyžbice underground passage; development of the Balina industrial zone; revival of cultural events; parks and green areas in the city.
4. Ostrava: influx of foreign investors; development of science and technology parks and industrial zones; development of universities.

Next, the representatives of city authorities were asked if they felt the threat of competition from other cities in their vicinity or in the region. In all four cases, the answers were affirmative. In the current socio-economic conditions, competition between the largest cities in the Czech Republic is strong, and the issue of city marketing is closely related to the competitiveness of spatial units, such as cities or regions. The representatives of the studied cities noticed an increase in competitive pressure in recent years and acknowledged the need for cities to increase their comparative advantage in the medium term, which is often supported by modern marketing. The study also identified competition between cities and their peripheries. Due to the expanding urbanization and shortage of land for development in cities, there is a substantial outflow of people to suburban areas. This is an increasingly common trend. As a consequence, there is an urgent need to revitalize the city centres.

A full implementation of city marketing requires the cooperation of individual sectors. The importance of cooperation between the public and private sectors today, which to some extent determines individual areas of the region's development, is the subject of analyses by experts representing many scientific disciplines including economics, administration, regional development and political science. The surveyed cities are taking similar steps to attract potential investors. Information for entrepreneurs can be found on their websites. In this way, the local governments try to help entrepreneurs overcome the complicated bureaucratic procedures that often make it difficult to start and run a business.

Cities attach great importance to the promotion of various events: information about them can be found in local newspapers, on posters in designated city places, on roadside billboards, or in information spaces on public transport. In the case of large events, city authorities organize press conferences, which are certainly an excellent communication tool used in so-called event marketing.

The last question of the interview concerned the importance of subsidies for city development. It turns out that subsidies play a very important role in all the cities that participated in the study. However, the respondents stressed the fact that although subsidies are beneficial to the development of cities, excessive bureaucracy often discourages cities from applying for them. According to the representatives of city authorities, certain conditions for granting a subsidy (such as, for example, a long compulsory project financing time) sometimes mean that implementing the project without a subsidy is a better option.

6. Conclusions

In summary, empirical research has proved the important role of the concept of city marketing in the management of selected Czech cities located in the Czech-Polish borderland. The respondents emphasized the pressure from other settlement units, even from smaller peripheral towns, in the competition for investors and tax-paying residents. Promotional activities are also directed at tourists who choose a given destination for their holidays.

Territorial marketing goes through certain stages in its evolution. It becomes enriched with new forms and instruments of communication with the environment, including those related to Internet media or mobile applications. Competition for limited resources, such as investor funding or tourism income, will be won by those cities whose authorities manage to develop and implement effective marketing strategies ahead of their rivals.

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CIVIC BUDGETS IN CITIES OF GREATER POLAND REGION IN 2018

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Purpose: the purpose of the elaboration is a review of civic budget projects in cities of Wielkopolska (Greater Poland region) in 2018 with a view to compliance with the smart city concept.

Design/methodology/approach: (mandatory) The study was carried out in three stages. At the first stage, websites of all 113 cities in Wielkopolska were reviewed (full study in February-April 2020), which allowed to diagnose the level of implementation of civic budgets in the surveyed population in 2018. At the second stage, information on all correctly submitted project applications (915) and the number of finally selected projects for implementation (279) were collected. In the third stage, ten winning projects were selected, based on using the information and communication technologies (ICT). Due to the difficulty of verifying activities in terms of being smart, a fairly simplified technological criterion was adopted, assuming that in order to achieve the smart city 2.0 phase a systemic approach based on the rapid flow of information between different devices is required.

Findings: Only 40% of cities in Greater Poland region created civic budgets which leaves a lot of space for improvements. Projects selected for implementation under civic budgets are still largely of investment nature. A considerable number of tasks related to sport, culture and tourism were reported. At the first stage, smart city projects focus on simple activities improving life, especially in the area of smart living, while attempts to implement system solutions within smart city 2.0+ phases are carried out at this stage only in the Poznań agglomeration.

Research limitations/implications: it is worth repeating the research on the quality of projects approved for implementation under civic budgets in every Polish region, with extended understanding of smart city projects beyond the use of ICT. Such a comprehensive list could be helpful for the formulation of urban policy assumptions, which is required at the smart city 2.0 and 3.0 phases.

Originality/value The paper fills a research gap regarding the limited resource of publications related to the description and classification of prevailing projects in a regional approach.

Keywords: smart city, civic budgets, co-creation, social innovations, local development.

Category of the paper: research paper.

1. Introduction

Issue of creating the civic budgets was present in the last century both in practice and in the literature. First performance based on the participatory budget was proceeded in 1989 in Porto Alegre (Brasil). Other cities started copying the procedure although it had not been so popular until 2000. The real civic budgets boom took place in the XXI century when in first decade 1500 cities implemented this solution in the public management. The participatory budgets were different and still are in many places regarding the procedure, range or objectives (Gałęcki, 2013).

In the Polish literature, descriptions of individual cities solutions dominate. Burchard-Dziubińska (2016) and Wiśniewska (2018) wrote about civic budget in Łódź, description of civic budget of Wrocław was shown by Tatarowska i Furmankiewicz (2018), Krawczyk (2016) wrote about improving the model of Częstochowa civic budget and Studencka (2017) presented the consequences of civic budgets projects in Katowice for spatial management. However, there is a research gap regarding the limited resource of publications related to the description and classification of prevailing projects especially in a regional approach.

Moreover significant premises of the presented topic are relatively new law regulations regarding civic budgets. Polish legislation did not include the term of civic budget until 2018. Article no. 5a of a municipal government act (1990) pointed only the possibility of carrying out a consultation with residents. Basing on this article, municipal councils started to implement civic budgets and define the procedures of conducting these budgets on their territory (Sobol, 2017).

The situation had changed on the 11th of January 2018 when the act of increasing the involvement of citizens in the public life came into force (2018). The meaning of the civic budget was brought thereunder. Admittedly in art. 1, sec. 1, point b)4) of the act from 2018 this definition was not formulated directly – it is said that “under the civic budget every year residents are deciding on the part of municipal budget expenses in a direct voting” but this formulation can be adopted as a definition of a civil budget. It means that the civic budget is a separated part of financial resources of the territorial entity budget (typically of the city) which allocation is determined by members of the local community. It is a tool of engaged participation although choices of citizens are subjective. The aim of the civic budget is to support the creation of a civil society thus to lead to the dialogue between the local authorities and the community (Wampler, 2007), (Laurisz, 2013), (Łukomska-Szarek, 2014), (Jeran, Mączka, Matczak i Milewicz, 2017), (Kołodziej-Hajdo, 2017).

The relevant change included the cities with county rights for which creating a civic budget happened to be the obligation. Minimum amount of the civil budget was set, which cannot be less than 0,5% of the commune expenses, put in the latest budget implementation report.

Financial supervision is handled by regional financial chambers due to the correlation of the civic budget and the municipality budget.

Establishing the procedure of carrying out the civic budget on the commune territory or identifying requirements of submitted projects are still in competences of municipal councils. Projects outvoted by residents have to be included in the budget resolution of the commune and councilors cannot remove or make big adjustments (Daniel, 2019).

Taking a research gap and present regulations into consideration, the purpose of the elaboration is a review of civic budget projects in cities of Wielkopolska (Greater Poland region) in 2018 with a view to compliance with the smart city concept. For achieving the goal an overview for all of the submitted and implemented projects in cities of Wielkopolska had been made in 2018 (full research) using available public information.

2. Phases of smart city

The term smart city is presented very extensively in the literature and the consequence of that is the existence of a lot of definitions (more about that (Lewicki i Romanowski, 2017). Also in Poland examinations of smart city concept are undertaken. The biggest interest in this area is shown by researchers of geographical and economic sciences (Masik i Studzińska, 2018).

The lack of universal smart city definition creates a problem with referring to the particular author. Literature shows two main definition axis which tell what a smart city is. In the first approach, the core of high-tech and its inclusion in the greater city operating is emphasized. Integration of ICT technology with the city infrastructure leads to economic growth, social capital growth and sustainable resources exploitation (Komninos, 2008). What is more, usage of the modern ICT technologies develops interactivity and efficiency of the city infrastructure and depended elements (Obrębalski, 2016). Second smart city approach is orientated to a greater extent on a human and social capital, natural environment and education – including high-tech (Lombardi, Giordano, Farouh i Yousef, 2012). This approach seems to accord more legibly with sustainable development principles.

Smart city concept has evolved and its generations are reflected in implemented smart solutions in a city tissue. Originally initiators of smart actions were private companies and representatives of the ICT sector that cared about adaptation of modern technologies in the city – in the literature (Cohen, 2015) this model is called Smart City 1.0. (technology driven). Producers cared about implementation of their final products, however the solutions were not necessarily bringing the added value for the city (for instance urban card or CCTV) because they were not adjusted to the city characteristics. Integration of solutions was not considered and city authorities were not fully aware of the final effects. Nowadays, we can also talk about

Smart City 1.0 – an extreme example of that smart city phase is a city built from the scratch like Masdar in the United Arab Emirates or Songdo in South Korea (Rudewicz, 2019).

The next phase, Smart City 2.0 (city led) assumes a holistic approach towards implemented solutions which leads to a selective integration of systems based on mutual benefits. The involvement of city stakeholders is much bigger, especially of city authorities which are participating in a decisive process regarding to modern solutions location. Authorities are identifying needs of urban centre more deliberately and they are defining the expectations towards producers by making projects and programmes, leading in an implementation process of new solutions, raising funds for them and relying on their own expertise (Zawieska, 2016), (Rudewicz, 2019).

Generation of Smart City 3.0. (co-creation city) rely on a fully integrated systems which often leads to city-wide investment strategies. It assumes an active contribution of decision makers and local authorities in creating new and innovative solutions which have a chance to respond not only to infrastructural needs but also to social and economic ones. Local authorities play the role of the observer or the assistant more often that supports the communication between inhabitants and tenderer of new technologies. Technology is treated as a tool used to improve life conditions of urban community. In this generation strong emphasis is on the social capital activation and collaborative economy (Zawieska, 2016) (Rudewicz, 2019).

In the literature the term Smart City 4.0 is timidly starting to appear. The phase is based on the presumption, that a smart city is simultaneously a sustainable city but still developing and modern solutions optimize urban infrastructure and create a space for a social integration (Paliński, 2019). Cohen (2015) claims that cities can go through mentioned phases from one to another for instance from 1.0 to 3.0 or undergo all of the phases at the same time. Usually there is a hybrid of Smart City 2.0 and 3.0 and this is recognised by Cohen (2015) possibly for the best one so far.

The literature indicates that the residents' voices are counting in cities which reached the 3.0 phase. In practice, this does not seem to be fully reflected due to the introduced participatory budgets in multiple cities that have not really reached any of smart city phases. What seems to be relevant at phase 3.0, that residents propose the solutions for the city because only then will they create the community which through its creativity impacts on an increasingly better quality of life in the urban space. Submitted tasks should be examined through such tools of social participation. It would give the answer to the concern if the society of a particular city is an initiator of solutions for the city and especially whether innovative projects appear.

For the analysis of ongoing projects under civic budgets in this publication smart city 0.0 phase has been adopted. The phase includes actions such as supplying of the equipment or conducting ICT training but with no element of data management which can build a system.

3. Methodology and results of civic budgets analysis in cities of Wielkopolska voivodeship in 2018

Presented research results dedicated to civic budget implementation in cities of Wielkopolska voivodeship for 2018 are based on data included in reports about a municipality condition or websites dedicated to civic budgets of particular cities with a special focus on public information bulletin sites. All 113 cities in the voivodeship were covered by the study. The collected data was analyzed both quantitatively and qualitatively.

Although Poznań stood out from other units, it was decided not to reject it from the study, because the authors wanted a synthetic approach to the studied issues.

The study was carried out in three stages. At the first stage, the websites, mainly public information bulletin, of all 113 cities in Wielkopolska were reviewed (full study in February-April 2020), which allowed to diagnose the level of implementation of civic budgets in the surveyed population in 2018. At the second stage, information on all correctly submitted project applications (915) and the number of finally selected projects for implementation (279) were collected. In the third stage, ten winning projects were selected, based on using the information and communication technologies (ICT). Due to the difficulty of verifying activities in terms of being smart, a fairly simplified technological criterion was adopted, assuming that in order to achieve the smart city 2.0 phase a systemic approach based on the rapid flow of information between different devices is required. Additionally, as mentioned, the smart city 0.0 phase was added to indicate activities based on technology but without data management.

The review of reports revealed that out of 113 cities in the Wielkopolska Voivodeship, 34 cities in 2017 identified a pool of money in the city budget and allocated it to the implementation of the 2018 civic budget. This meant that civic budgeting covered an area inhabited by over 1,573 thousand people with a total area of 4 198.8 km². Although the average population density of the surveyed local government units equaled 654.95 people/km², as many as half of them were characterized by a density equal to or lower than 192.86 people/km².

The 2018 civic budget was owned by 31.1% of the cities in Wielkopolska. Three cities decided to additionally implement the village administrator's fund and 7.1% of the cities had only the village administrator's fund. Moreover, Września and Gostyń did not have their own civic budget for county civic budgets. Less than 60% of the cities covered by the study did not use any of these forms of social participation (Figure 1).

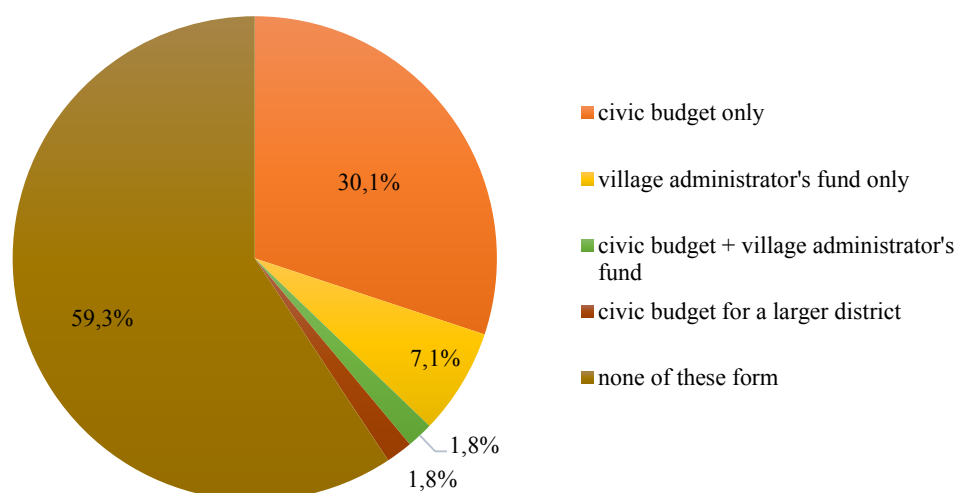


Figure 1. The percentage of Wielkopolska cities with a civic budget and a village council fund for 2018. Source: own elaboration.

The process of preparing the civic budget was very different for each of the analyzed units. Therefore, it is difficult to talk about a single model of participatory budgeting as each city adopted its own regulations for conducting a civic budget by way of a resolution or ordinance of the executive body. However, it can certainly be said that the solutions concerning the civic budget procedure had common features and perhaps some of the solutions were copied from other units. The main differences referred to the time of submitting tasks and voting, the amount allocated to the civic budget and the formal conditions that the submitted project had to meet.

Promotion of the civic budgets of Wielkopolska cities took various forms. Information about them was most often found on the official websites of the cities and sometimes on the dedicated, official website of the civic budget for the city. For example, such internet platforms devoted only to the civic budget are available in Poznań (budzet.um.poznan.pl), Konin (www.kbo.konin.pl), and Szamotuły (szamotuly.budzet-obywatelski.org).

The analyzed units were both urban and urban-rural communes. Thus, some budgets included tasks strictly related to urban public space as well as tasks related to other places located in a given commune (Table 1).

Table 1.*The cities of Wielkopolska voivodship implementing civil budgets in 2018*

Small cities (till 20000 inhabitants)			
Cities (till 10000 inhabitants)	Value of civic budget (PLN)	Cities (10000 – 20000 inhabitants)	Value of civic budget (PLN)
Bojanowo	75 000	Czempiń	50 000
Książ Wielkopolski	100 000	Kłodawa	400 000
Puszczykowo	100 000	Kostrzyn	250 000
Szamocin	200 000	Międzychód	365 633,8
Ujście	140 000	Słupca	120 000
		Śmigiel	160 000
		Witkowo	100 000
		Złotów	500 000
Medium cities (20000. – 100000 inhabitants)			
City (20000 – 40000 inhabitants)	Value of civic budget (PLN)	City (40000 – 100000 inhabitants)	Value of civic budget (PLN)
Grodzisk Wielkopolski	200 000	Gniezno	500 000
Kępno	300 000	Kalisz	5 000 000
Kórnik	700 000	Konin	2 000 000
Luboń	250 000	Leszno	1 000 000
Mosina	947 923	Ostrów Wielkopolski	1 000 000
Nowy Tomyśl	250 000	Piła	3 000 000
Pleszew	500 000	Śrem	700 000
Rawicz	650 000	Swarzędz	1 500 000
Szamotuły	500 000		
Turek	500 000		
Wągrowiec	250 000		
Wolsztyn	300 000		
Big cities (over 100000 inhabitants)			
City	Value of civic budget (PLN)		
Poznań	18 000 000		

Source: own elaboration using scale proposed in GUS (2018).

Medium-sized cities were the largest group among all 34 cities in which the 2018 civic budget was created and in their case 66.7% of all medium-sized cities in the Wielkopolska voivodeship implemented the civic budget. In small towns, the civic budget was considered in 15.9% of cases. The smallest city in terms of the number of inhabitants in which the civic budget was implemented was Szamocin, the largest was Poznań.

The process of collecting ideas for voting also depended on the local government, which could impose restrictions. One of the most important was the amount of the city budget allocated to the implementation of the civic budget. It usually ranged from 0.5% to 1% of the city budget. Another limitation, which occurred especially in larger cities was the imposition of a task category.

Ideas were divided into the following categories: investment and non-investment, large and small, hard and soft and general city and neighborhood (district).

Notifications of activities could usually be submitted by residents, non-governmental organizations, organizations of auxiliary units of local government or organizational units of

the commune. In the case of cities of Wielkopolska, almost all ideas were submitted by the inhabitants.

The verification of submitted ideas consists of meeting the formal and substantive requirements. Formal requirements usually consisted of completing mandatory fields in the form and submitting the document on time. Then, it was checked whether the task was feasible, e.g. in terms of costs, compliance with the development strategy of the individual, or the place of implementation in the urban space. For instance, 165 applications were rejected in Poznań's civic budget for 2018 and 38 in Kalisz.

In 2018, 915 applications were correctly submitted to the civic budgets, while Poznań itself had 160 tasks qualified for voting (17.5% of all applications). On average, there were 26.91 such applications per city (Table 2).

Table 2.

Selected information on cities of Wielkopolska implementing civic budgets in 2018

Statistical measurement	Average	Median	Standard deviation	Minimum	Maximum	Total
Numer of inhabitants	46 275,00	26 870,50	89 527,42	7 508,00	536 438,00	1 573 350
Area of the municipality (km ²)	123,49	128,50	78,06	10,00	307,20	4 198,8
Density of population (person/km ²)	654,95	192,86	735,64	57,08	2 352,55	
Ratio of voters to the number of inhabitants * the indicator does not include data for two cities for which information has not been disclosed	16%	15%	9%	0%	34%	
Value of civic budgets (in thousand PLN)	1 194,36	382,82	3 124,69	50,00	18 000,00	40 608,56
The amount of the civic budget per capita (PLN/person)	18,29	16,34	10,82	4,36	51,20	
Number of Projects qualified for voting	26,91	12,5	37,40	2	160	915
Number of Winning projects selected for implementation	8,21	4,5	11,53	1	56	279

Źródło: opracowanie własne.

The projects proposed in them most often concerned the construction or renovation of roads, sidewalks, bicycle paths or parking lots, renovation of schools, construction of a playground, playgrounds, outdoor gyms, monitoring installations, providing lighting, revitalizing green spaces or meeting places, or organizing events for the local community. Less frequently, the applications referred to the support for the elderly, the disabled, the protection of cultural goods or the care of stray dogs and cats (Fig. 2).

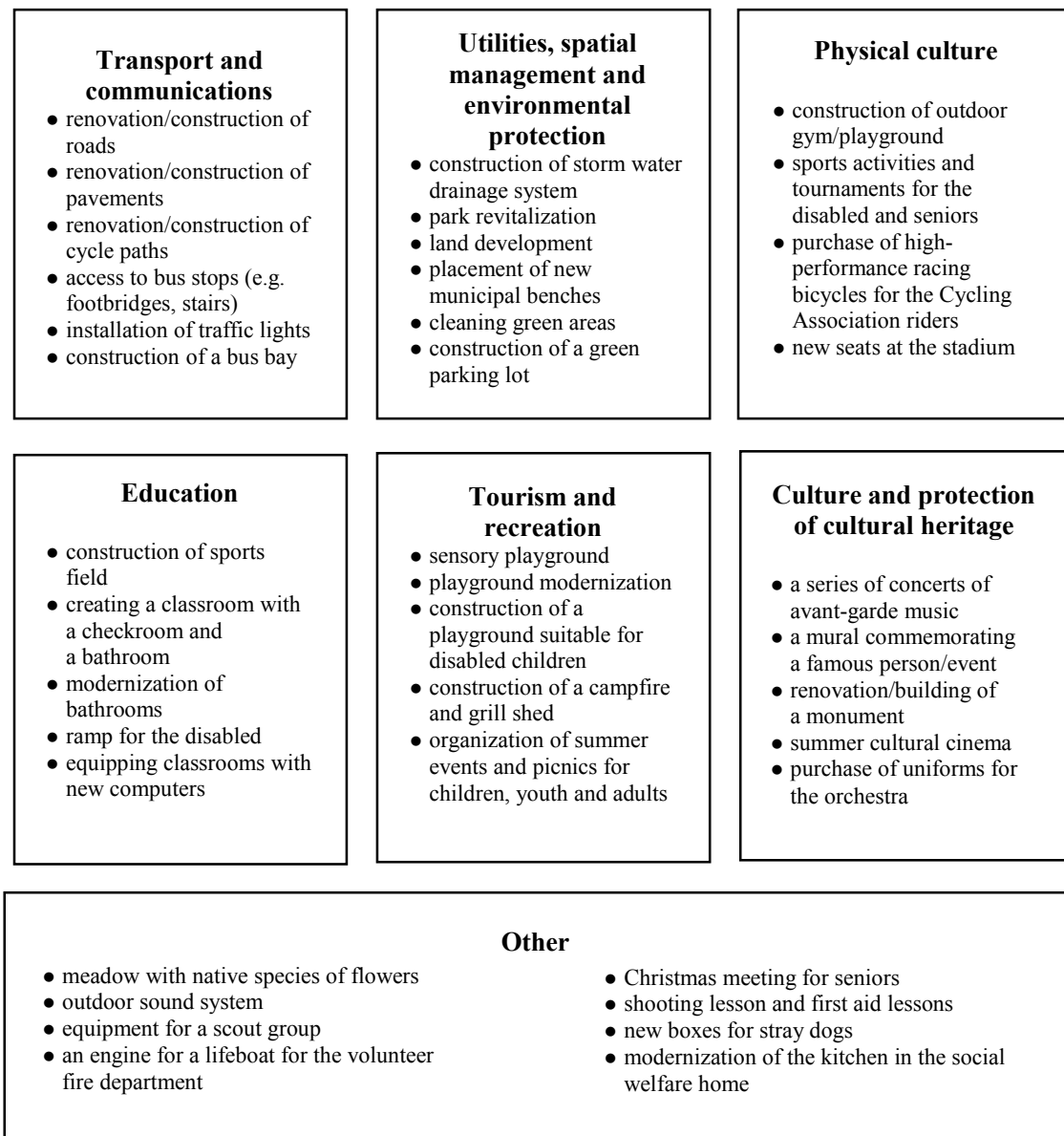


Figure 2. Examples of tasks submitted to civic budgets for 2018. Source: own elaboration.

Voting was common, it was possible to vote both online and in a traditional way and it was possible to vote for several days or more. The voting results depended on civic involvement, both at the stage of submitting tasks and voting itself.

The ratio of the number of voters to the number of inhabitants was comparable for many surveyed entities, on average it amounted to 16% (Table 2). The highest value of the index was achieved by Czempin – 34%. The lowest value was 0%, as no voting took place in Grodzisk Wielkopolski. Four tasks were submitted there, the total costs of which were in the amount of the civic budget, hence, submitted projects automatically became successful.

Wielkopolska cities allocated a total of 40,608.56 thousand PLN in civic budgets in 2018. The average value of the civic budget for the city was 1,194.36 thousand PLN, but for as many as half of this value did not exceed 382.82 thousand PLN. Poznań allocated the most for this purpose – 18,000 thousand PLN, the least Czempin – 50 thousand PLN. The amount of the

civic budget per capita ranged between PLN 4.36 and PLN 51.20, but the maximum value differed significantly from the average of PLN 18.29.

The winning projects, 279 in total, accounted for 30.5% of the projects qualified for voting. As a result of voting, on average 8.21 projects were selected for implementation but half of the cities had exactly or less than 4.5 winning projects. In the tested group, the number of winning tasks deviated from the arithmetic average for about ± 11.53 tasks, which proves the high variability of the number of winning projects for individual cities. Despite this variation, the number of voted projects was strongly correlated with the number of projects qualified for voting (Pearson's index: 0.864). In one of the analyzed cities only one task was selected for implementation, the leader in this category had 56 winning projects (Table 2).

Less than 1/3 of Wielkopolska cities, i.e. 34 out of 113 had a civic budget for 2018, although various forms of residents co-decision in communes were carried out in 40% of cities in Wielkopolska. Some urban-rural communes did not use this tool for the village funds. Interest in the civic budget varied, both at the stage of submitting projects and voting. Almost 1/3 of all tasks qualified for voting were outvoted and entered into the budgets of municipalities for 2018.

In 2018, civic budgets fulfilled their role, it can be admitted that most of their implementation was successful. It is difficult to assess whether local authorities with a very small number of projects or with a very low turnout achieved the expected results. Perhaps participatory budgeting is not the expected form of social participation there, or the entire procedure is too complicated. The number of civic budgets in 2018 in the Greater Poland Voivodeship does not prove the universal use of this tool, but it is certainly a signal that local authorities want to give votes to their residents. Still, to a large extent, projects submitted to the budget are investment tasks consisting of renovation or construction of municipal infrastructure. However, the reported number of tasks related to sport, culture or tourism proves that the inhabitants expect from the city not only infrastructural investments, but also activities for the development of the individual and spending time in the city's public space.

The multiplicity and type of tasks hidden under the category of "other" proves that the inhabitants of the Wielkopolska voivodeship are active observers of life in the city and can be creators of projects, also unconventional, which will improve the quality in their life, directly tailored to the needs of a given community. This gives grounds for the conclusion that when the basic needs of the inhabitants are satisfied, they will start reporting innovative tasks in the process of civic budgeting.

4. Evaluation of smart city projects implemented as part of civic budgets in cities of Wielkopolska in 2018

Secondary analysis of civic budgets is the next step of the research procedure and allows to recognize what types of needs are reported by the city's stakeholders and whether there are tasks for smart city concept among them.

Examples and considerations in the literature (introduction) allow us to state a shift of emphasis in civic budgets from investment tasks related to basic urban infrastructure, to tasks related to education, culture, tourism, health and nature protection and other tasks improving the quality of living in urban space. This direction of changes is the theoretical confirmation that cities are developing and that their inhabitants will start proposing innovative activities.

The continuation of considerations on the projects of civic budgets was aimed at assessing these tasks in terms of fitting them into the smart city concept. Due to the difficulty of verifying activities in terms of being smart, the results were based on a list of tasks that clearly fit into the idea of the smart city project. The use of technology in the project served as a distinguishing criterion.

In 2018, 34 smart city projects were included in the proposed tasks for the civic budgets of cities of Wielkopolska. They accounted for 3.7% of all qualified tasks. The proposed tasks (Fig. 3) were of both investment and non-investment nature. Half of the projects concerned increasing security, which, in the opinion of the applicants, could improve thanks to the monitoring of urban spaces, easily accessible AED defibrillators, intelligent pedestrian crossings and air monitoring using an anti-smog drone. The potential of introducing smart solutions has been noticed in senior citizens and children.

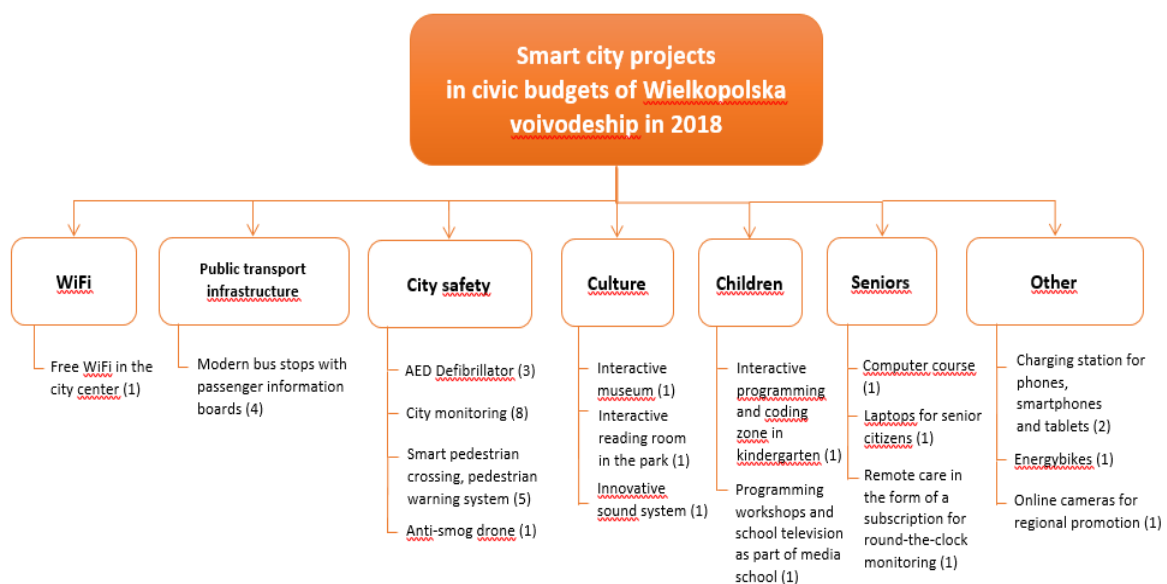


Figure 3. Smart city projects qualified for voting in Wielkopolska civic budgets for 2018 (the number in brackets indicates the number of projects submitted). Source: own elaboration.

In the first group, applications were made for extending IT knowledge and remote care based on monitoring, and the second group was proposed to create a media school with programming courses, or to initiate an interactive zone with programming and coding for kindergarten children. Other tasks, among others, were focused on the sphere of culture, public transport, access to an Internet by free Wi-Fi, or the creation of a small urban infrastructure that will allow to charge a phone or a tablet.

Among the tasks chosen to voting, 10 projects were selected for implementation (Table 3). Their review is important because only the winning projects testify to the needs of local communities.

Three projects were selected from Kalisz, two from Piła and one each from Poznań, Ostrów Wielkopolski, Kórnik, Mosina and Książ Wielkopolski, which means that 80% of the tasks were outvoted in medium-sized cities (from 20,000 to 100,000 inhabitants), 10 % in a small city (up to 20,000 inhabitants) and 10% in a large city (over 100,000 inhabitants). However, this is not a sufficient attempt to draw conclusions about where smart city initiatives are most often created.

Table 3.

Overview of smart city projects implemented as part of civic budgets (CB) in Wielkopolska in 2018

SMART CITY AREA	TASK	CITY	BUDGET	STAKE-HOLDERS	TECHNOLOGY USED/ SMART CITY PHASE
SMART ECONOMY	No data	No data	No data	No data	No data
SMART MOBILITY	Smart pedestrian crossing	Piła	No data	Inhabitants, touristst	Service improvement action, data-driven technology, investment for specific application. Smart City 1.0. phase
	Smart pedestrian crossing	Piła	No data	Inhabitants, touristst	Service improvement action, data-driven technology, investment for specific application. Smart City 1.0. phase
	A modern bus stop with a passenger information system board	Poznań	500 000 PLN (2,7% CB of the city)	Passengers	Action based on the need to exchange data, there is cooperation between systems. Smart City 2.0. phase
SMART ENVIRONMENT	No data	No data	No data	No data	No data

Cont. table 3.

SMART PEOPLE	Computer course for seniors	Kórnik	8 500 PLN (1,2% CB of the city)	Seniors	Action aimed at improving the quality of life. An investment for a specific application. Smart City 0.0./1.0. phase
	Small Media School	Ostrów Wielkopolski	24 840 PLN (2,5% CB of the city)	Children	Action aimed at improving the quality of life. An investment for a specific application. Smart City 0.0./1.0. phase
	Interactive zone for programming and coding	Kalisz	57 035 PLN (1,1% CB of the city)	Children	Action aimed at improving the quality of life. An investment for a specific application. Smart City 0.0./1.0. phase
SMART LIVING	AED defibrillator in public institutions	Kalisz	60 000 PLN (1,2% CB of the city)	Inhabitants, touristst	Action aimed at improving the quality of life. Smart City 0.0./1.0. phase (applies to the installation of devices itself).
	Free WiFi	Konin	58 056 PLN (2,9% CB of the city)	Inhabitants, touristst	Action aimed at improving the quality of life. An investment for a specific application. Smart City 0.0./1.0. phase
	AED defibrillator for volunteer Fire Department	Książ Wielkopolski	7 200 PLN (7,2% CB of the city)	Inhabitants, touristst	Action aimed at improving the quality of life. An investment for a specific application. Smart City 0.0./1.0. phase (applies to the installation of devices itself).
	Village Monitoring	Mosina	77 066 PLN (8,1% CB of the city)	Inhabitants of the village	Reaction After starting real-time signal transmission to the headquarters of the municipal police – a holistic way of thinking and cooperation of systems Smart City 2.0. phase
SMART GOVERNANCE	No data	No data	No data	No data	No data

Source: own elaboration.

The verification of projects in terms of their advancement in the smart city concept, included in Table 3, allows the following conclusions to be drawn:

- 1) None of the won tasks covered any areas of smart economy, smart environment and smart governance. It can be assumed that smart economy and smart governance are not the domain of residents, so they do not submit tasks related to these areas of smart city. The lack of projects in the area of smart environment may mean that such tasks were not submitted or even when submitted, their nature did not include the use of technology, therefore they were not included in the study.
- 2) Some of the tasks were selective and marginal. The task outvoted in Poznań was a continuation of the development of the ITS Poznań System.
- 3) The winning projects came from every type of city, which shows that smart city projects are not only the preferences of large metropolises residents.
- 4) About 90% of won tasks came from medium and large cities. However, the sample is too small (10 projects) to be able to draw conclusions about the needs of smart city

communities in these cities, even though it represents a full population of smart city projects in the region according to the adopted criteria.

- 5) The won tasks were a response to the needs related to safety, health protection, education, counteracting digital exclusion, revitalization of public space, access to information and Internet access.
- 6) Assuming that the residents treated smart city projects as needs of a higher order, the small number of won smart city tasks in relation to other tasks allows us to assume that there were still many lower-order needs (e.g. repair of the road surface) that require implementation.
- 7) The number of submitted and won smart city projects indicates that voters in civic budgets did not treat smart city activities in the city as a priority (less than 30% of projects were selected for implementation).
- 8) The implementation of one smart city project consumed on average 3.36% of the city's civic budget, no city allocated more than 8.1% of the civic budget to the implementation of the smart city project (no data for Piła did not allow to include the city in this statistics).
- 9) Stakeholders of the winning projects were both all city residents and specific groups of recipients: in the case of civic budgets for 2018, they were senior citizens, children, only residents of a given place, tourists or only public transport passengers. There were no specific professional group or environmental tasks.
- 10) The degree of technology involvement in the won tasks varied. Some projects (e.g. WiFi access, defibrillator installation) were aimed at improving the service, without having the technology to be specially adapted to the task. Other projects, e.g. monitoring with real-time transmission of information to the municipal police or the ITS system in Poznań, already prove the need to collect and update data, and thus to create the architecture of ICT systems or sensor networks.
- 11) The analysis of the projects did not allow to answer the question of whether the community is able or willing to initiate tasks with a high degree of integration and technology advancement. Undoubtedly, the amount of civic budgets to a large extent limits the possibility of creating ideas of such a format. A sufficiently high budget could result in the emergence of more technologically advanced solutions for cities.
- 12) The won tasks were characteristic for the smart city phases of 0.0, 1.0 and 2.0. This shows that the inhabitants were mainly task-oriented, focused on satisfying a given need in a short run, and rarely treated the problem holistically and systematically.

5. Conclusions and limitations of the study

The results obtained through the 2018 review of civic budgets of cities in Wielkopolska Voivodeship are of a diagnostic and research nature. The conclusions apply to all cities of Wielkopolska, so generalizations can only be done to this region at a strictly defined time, therefore they should not be applied to other places or generalized. Only 40% of cities in Greater Poland region created civic budgets which leaves a lot of space for improving the inclusion of inhabitants in the co-management of the municipality. Projects selected for implementation under civic budgets are still largely of investment nature, consisting of renovation or construction of municipal infrastructure. Importantly, a considerable number of tasks related to sport, culture and tourism were reported, which proves that the inhabitants expect the city not only for infrastructure investments, but also for activities helping to spend time in the city's public space and developing of individual's life quality.

At the first stage, smart city projects focus on simple activities improving life, especially in the area of smart living, while attempts to implement system solutions withing smart city 2.0+ phases are carried out at this stage only in the Poznań agglomeration.

As for the limitations of the study, it is worth repeating the research on the quality of projects approved for implementation under civic budgets both in Wielkopolska and in other regions of Poland. In the future research, it is worth extending the understanding of smart city projects beyond the use of information and communication technologies. Such a comprehensive list could be helpful for the formulation of urban policy assumptions, which is required at the smart city 2.0 and 3.0 phases.

Undoubtedly, the described issue requires further research, therefore the presented considerations may, above all, serve as an inspiration to continue research on the importance of the smart city concept in civic budgets.

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SUSTAINABLE TOURISM FACILITIES AND THEIR IMPACT ON THE KUYAVIAN-POMERANIAN VOIVODESHIP TOURISM COMPETITIVENESS

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Purpose: Tourism is presently one of the fastest-growing branches of the economy. It is therefore crucial to maintain balance between three aspects, i.e. the social, the economic and the environmental, which is possible owing to one of the most important nexuses of sustainable development, namely sustainable tourism. This article thus attempts to define the concept of sustainable development and sustainable tourism. Empirically, the article aims to identify instances of areas and facilities functioning as elements of sustainable tourism as well as to key out their impact on the growing number of tourists, and consequently on the increasing tourist competitiveness of the Kuyavian-Pomeranian Voivodeship.

Design/methodology/approach: This article analyzes the latest scientific literature in terms of sustainable development and sustainable tourism. Reports from Statistics Poland (GUS) were analyzed in the study.

Findings: As a result of the conducted analysis an increase in the number of the tourists visiting the two largest cities of the Kuyavian-Pomeranian voivodeship, i.e. Bydgoszcz and Toruń may be observed. The number of eateries operating in the Kuyavian-Pomeranian voivodeship increased each year, compared to the other two voivodships under examination. This has had significant impact on the voivodeship's increased tourist competitiveness. The Kuyavian-Pomeranian voivodeship additionally offers a large number of tourist routes.

Originality/value: Results of the conducted analysis enrich the literature concerning on sustainable development and sustainable tourism. In addition, they serve as recommendation for conducting further quantitative research in this field.

Keywords: Agenda 21, Kuyavian-Pomeranian Voivodeship, sustainable development, sustainable tourism.

Category of the paper: Literature review.

1. Introduction

Competition is one of the phenomena observed in all areas of human activity, hence it is of interest to many specialists. One of the most important topics addressed in management or economic sciences is the competition in economy.

One of the effects of economic development is its negative impact on the environment. For many years, social movements, whose main task is to reduce the negative impact on the environment and help improve the life of local communities, have been advocated.

Many disciplines, including natural, social and economic sciences, have undertaken research on the concept of sustainable development. In regional and local development strategies, tourism has been playing an increasing role in terms of positioning, which is why it is so important to create more tourist destinations in the spirit of sustainable tourism.

Sustainable tourism is a discipline devising branded products of a region, the quality of which very often primarily depends on the conditions resulting from the region's natural predispositions.

This article attempts to define the concept of sustainable development and sustainable tourism. Empirically, it aims to identify instances of areas and facilities functioning as elements of sustainable tourism as well as to key out their impact on the growing number of tourists, and consequently on the increasing tourism competitiveness of the Kuyavian-Pomeranian Voivodeship.

The article was written based on the results of own observation and the analysis of the subject matter literature. To accomplish the goal assumed, analysis was carried out with reference to the number of the tourist routes, the number of the tourists staying at accommodation facilities, the number of eateries as well as the number of the tourists visiting the largest cities of the Kuyavian-Pomeranian voivodeship and two neighboring voivodeships. Additionally, the sustainable tourism facilities operating in the Kuyavian-Pomeranian voivodeship have been presented as well. The results of the analysis supplement the literature on sustainable development and sustainable tourism. One additional value resulting from the study entails development of resources for further quantitative research in this area.

2. The concept of sustainable development

The concept of sustainable tourism is a relatively raw notion, existing in both Polish and world literature. To elucidate on what sustainable tourism is, however, one should go back to the very beginning.

The concept of sustainable tourism arose from the implementation of the sustainable development principles functioning in various economic zones. Humans and their activity have significant, destructive impact on the natural environment. That is why initiation of changes that will have positive impact on the ecosystem, but will also affect human activity, was so important. The concept of sustainable development was the answer to that (Zawistowska, 2014; Płachciak, 2011).

Sustainable development was first mentioned in the 1980 World Conservation Strategy report, which emerged after years of intensive development of the environmental thought into its present shape. One crucial event, deemed as the beginning of sustainable development, was the speech of the UN Secretary General U Thant in 1968, followed by publication of the "Man and His Environment" report in 1969. In addition to the above-mentioned report, it is also worth mentioning "The Limits to Growth" published by the Club of Rome in 1972, which also attempted to determine the human impact on the environment (Lemkowska, 2020; Meadows et al., 1972).

Although the report publication is considered have initiated the idea, it was only after many years that an attempt was made to develop the first definitions of sustainable development, i.e. in 1987, when the World Commission on Environment and Development published the "Our Common" report prepared by the World Commission on Environment and Development, often also referred to as the 'Brundtland Commission' (UN, 1987; Lemkowska, 2020).

The report produced by the Commission, introduced a definition of sustainable development, which was presented in both an economic and a political context. According to the report, sustainable development is such development, which meets the needs of the present generation, without limiting the future generation' prospects for satisfying these needs. The definition developed for the purpose of the report had functioned in the world of science for many years and had its share in the formulation of legal and political acts or development strategies (Rokicka, Woźniak, 2016; Stanny, Czarnecki, 2011).

Over the years, many definitions have been formulated, which bring us closer to the essence of sustainable development. Table 1 presents various authors' definitions of sustainable development.

Table 1.
Different definitions of sustainable development

No.	Author	Definition
1.	Sztumski W. Idea zrównoważonego rozwoju a możliwości jej urzeczywistnienia, PROBLEMY EKOROZWOJU 2006, Vol. 1, No. 2, pp. 73-76.	A process of country, city, business, community etc. development, which connects the needs of the present generation unconditionally with the ability to meet the needs of future generations, and the needs of certain people with the needs of others.
2.	Turner R.K. 1988, Pluralism in an environmental economics: a survey of the sustainable economic development debate. Journal of Agricultural Economics, Vol. 39.	Sustainable development necessitates maximization of economic growth net benefits, in order to maintain over-time access to natural resource services and quality.
3.	Kozłowski S. 1998, Ekologiczne problemy przyszłości świata i Polski. Komitet Prognoz „Polska w XXI wieku” przy Prezydium PAN, Warsaw.	Such manner (model) of a specific area’s socio-economic development, whose assumptions result from the natural conditions, do not violate the ecological balance and guarantee the survival of not only the present but also the future generations.
4.	Runowski H. 2002, Rozwój zrównoważony rolnictwa i gospodarstw rolniczych. Wieś i rolnictwo – perspektywy rozwoju. IERiGŻ, IRWiR PAN, SGH, Warsaw.	The strive to achieve balance between different goals of socio-economic development, without which it is difficult to maintain system longevity. The concept of lasting development somewhat determines the main objective of system stability and continuity. The term sustainable development, in turn, indicates the way of proceeding in order to achieve the goal of permanence.
5.	Kassenberg A. 2007, Zrównoważony rozwój a koncepcja przestrzennego zagospodarowania kraju, [w:] Rozwój, region, przestrzeń, (red.) G. Gorzelak, A. Tucholska, MRR, EUROREG, Warsaw.	The essence of sustainable development entails the pursuit for equal approach to the social, economic and environmental rationales in each decision making, where applicable. This, however, does not mean a mere compromise. It is more of an integral plane rather than a configuration of three separate components.

Source: own elaboration based on subject matter literature.

Definitions of sustainable development can also be found in legal documents, for instance in the Act of April 27, 2001, Environmental Protection Law. Sustainable development is understood as "such socio-economic development, in which political, economic and social activity integration occurs, maintaining natural balance and durability of basic natural processes, in order to guarantee the possibility of meeting the basic needs of individual communities or citizens, with regard to both the present and the future generations" (Journal of Laws 2018, item 799).

Although various definitions of sustainable development exists in the literature, they all exhibit common elements. Sustainable development is often viewed as the search for a perfect solution, as to combine such three important aspects as: the natural environment, the economy and the society. Sustainable development has been applied in many areas of economic life. Increasingly often it has been observed in tourism as well.

3. Sustainable tourism

Tourism presently is one of the fastest growing branches of the economy. The report published by the World Travel & Tourism Council indicates that in 2019, the tourism industry accounted for 10.3% of the global GDP, which translated into US dollars 8.9 trillion. The rapid development of tourism had significant impact not only on the life of entire communities, but above all on the natural environment. This is one of the reasons why the concept, the main objective of which was to reduce the negative impact, was developed (WTTC, 2020; Widawska-Stanisiz, Majewska, 2019).

The notion of sustainable tourism was first introduced in 1996 by the World Tourism Organization (UNWTO). The official UNWTO definition referred to it as the tourism "leading to management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity, and life support systems" (Agenda 21, 1994; Bajdor, Grabara, 2012).

Many definitions describing this concept can be found in the literature on sustainable tourism. Nevertheless, the definitions developed by two international organizations are most frequently cited. Table 2 presents these definitions of sustainable tourism.

Table 2.
The concept of "sustainable tourism"

No.	Document	Definition
1.	World Tourism Organization	Sustainable tourism development meets the needs of present tourists and host regions while protecting and enhancing opportunity for the future. It is envisaged as leading to management of all resources in such a way that economic, social, and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity, and life.
2.	World Trade Organization	Sustainable tourism satisfies present needs of the tourists and destinations by protecting and increasing opportunities for the future.

Source: own elaboration based on: Agenda 21 for the Travel and Tourism Industry.

Sustainable tourism has been included in the New Urban Agenda as one of the sectors that can have significant impact on urban economy and generation of new, high-quality jobs. The remarkable development of sustainable tourism may be related to the activities that are not only meant to stimulate the tourist traffic, but primarily have positive impact on the economic situation and the life of local residents, and above all, are intended to help avoid the negative effects of urban space overtourism, enabling sustainable development of tourism initiatives that are beneficial for both the tourists and the residents (Komorowski, Hołderna-Mielcarek, 2019).

It should be noted that, in the era of the growing popularity of tourism and the increasing demand for this type of services, sustainable tourism is meant to ensure development of environmentally friendly tourism and provide sustainable socio-economic development. Sustainable tourism is therefore intended to make optimal use of the natural resources that constitute its key developmental element. What is more, it involves respect for the socio-

cultural values, the cultural heritage and the traditional values that may contribute to intercultural development. Long-term socio-economic benefits should also be ensured to all parties involved in the development of tourism (Nieżgoda, 2004; Tnguy et al., 2013).

The beginning of sustainable tourism can be traced back to the First United Nations Conference of 1972, where had been brought to the urgency for integrating fast economic development with environmental protection. It was during the Second United Nations Conference held in 1992, however, when solutions that had actual impact on environmental protection were adopted. The conference ended with adoption of very important arrangements regarding tourism, i.e. Agenda 21 (Gawor, 2006; Burchard-Dziubińska, 2014).

The Second United Nations Conference, held in Rio de Janeiro, was one of the largest and most significant conferences devoted to contemporary environmental issues and sustainable development. The so-called Earth Summit, where over ten thousand delegates from 176 countries met, was one of its highlights. These countries were represented by the most important persons holding the highest positions of state power (Burchard-Dziubińska, 2014).

The conference was concluded with a document called "Agenda 21 – an action plan for global sustainable development for the 21st century", containing a set of 2500 recommendations for states, organizations and societies. In the subject matter literature, as well as in everyday life, the document functions under a shorter name, i.e. "Agenda 21". It is an important document, whose main task is to promote the idea of sustainable development and environmental protection. It constitutes the basis for development and implementation of regional and national sustainable development strategies (Rydz-Żbikowska, 2012).

Agenda 21 aims to ensure development in a sustainable manner, through a system of incentives and penalties stimulating economic behavior. In addition to its main objective, Agenda 21 also contained other secondary targets, which, inter alia, include (Ferreira, 2017):

- eradication of poverty,
- sustainable exploitation of such global and regional resources as the atmosphere, the oceans and the seas, fresh water reserves as well as marine life.

Agenda 21 consists of four parts. Each of these parts pertains to separate but related areas of development (Agenda 21, 1992):

- Section I – discusses economic and social issues, covering, inter alia: international cooperation, aimed at acceleration of sustainable development and implementation of appropriate internal policies in developing countries; the fight against poverty; the changes in the consumption pattern; promotion of lasting, sustainable development of human settlements, etc.
- Section II – discusses the problems related to natural resource protection and management, in eco-development terms. The topics addressed include: protection of the atmosphere; the measures to prevent deforestation; management of vulnerable (unstable) ecosystems; prevention of desertification and droughts; protection of biodiversity; protection of inland water resource quality and exploitation; an integrated

approach to the problem of inland water resource development and management; environmentally safe hazardous waste management; prevention of illegal international hazardous waste trade; safe and environmentally sound handling of radioactive waste, etc.

- Section III – covers the issues of reinforcing the role of the main social groups and organizations, addressing the following in detail: the role of women, children and the youth in sustainable development; reinforcement of the non-governmental organizations' role, who are partners in sustainable development activity; reinforcement of the role workers and trade unions play in lasting, sustainable development; reinforcement of the scientific and technical communities' role in the provision of foundations and conditions for sustainable development; expansion of the farmers' role in the process of sustainable development, etc.
- Section IV – the last part of the Agenda discusses implementation of specific tasks, addressing the following in detail: the funding measures and mechanisms; the role of science in sustainable development; promotion of teaching; the shaping of social awareness, including sustainable development and environmental protection trainings; implementation possibilities in terms of state mechanisms and international cooperation; international legal mechanisms and instruments; information for decision making purposes, etc.

Agenda 21 presents one of the most important policy assumptions, which aims to strike a possible balance between such elements as the world's population and the ability to continue the evolution of life. Nonetheless, one very important Agenda 21 aspect entails emphasis on the fact that the changes occurring in the natural environment are conditioned by such factors as consumption, technology or the changes in the demographic structure. The document provides guidelines for reduction of land, air and water degradation, forest preservation, as well as conservation of the diversity of the species living on Earth. Agenda 21 covers many areas of economic life. One of these areas is tourism, which has had an increasing impact on the natural environment. Development of the concept of sustainable tourism is therefore a significant occurrence, not only meant to call attention to the protection of the natural environment, but also to accentuate the care for the local communities.

4. The Kuyavian-Pomeranian and the Warmian-Masurian Voivodeship tourism competitiveness

The Kuyavian-Pomeranian voivodeship is located in the north-central part of Poland. In 2019, the voivodeship had 2 072 373 inhabitants. The Warmian-Masurian voivodeship is located in the north-eastern part of the country. The number of inhabitants in 2019 was

1 422 700, whereas the Łódź voivodeship is located in the central part of the country and the number of inhabitants in 2019 was 2 455 000 (GUS, 2020).

The unique values of the Kuyavian-Pomeranian, the Warmian-Masurian and Łódź voivodships have contributed to the significant development of tourism in the region. The tourism values include, among others, the natural environment and the landscape, the large number of water bodies and the cultural heritage. Owing to these values, among other things, the voivodship was able to develop sustainable tourism.

Over the last decade, the Kuyavian-Pomeranian, the Warmian-Masurian and Łódź voivodships have become more attractive touristically. This has been confirmed, inter alia, by the increase in the number of the tourists visiting the region. Table 3. shows the number of the overnight stays recorded in the tourist accommodation establishments in these voivodships. A significant increase in the number of the tourists who decided to stay at the accommodation facilities can be observed. The highest increase in the Kuyavian-Pomeranian voivodeship was recorded in 2016, amounting to 12.87%, compared to 2015. In the Warmian-Masurian voivodeship, similarly to the Kuyavian-Pomeranian voivodeship, the highest increase was recorded in 2016, amounting to 14.62%, compared to 2015, whereas in the Łódź voivodship, the highest increase was observed in 2017. The data presented indicates a significant difference between domestic and foreign tourist data. In the Warmian-Masurian and the Łódź voivodships, the number of foreign tourists increased each year, as opposed to the Kuyavian-Pomeranian voivodship. In 2018, a decrease in the number of foreign tourists staying at accommodation facilities can be observed in the Kuyavian-Pomeranian and the Warmian-Masurian voivodships (-3.40% and -3.16%, respectively, compared to 2017). Detailed information on the percentage change in the number of the tourists staying at the accommodation facilities is presented in Table 4.

Table 3.

The Kuyavian-Pomeranian voivodeship versus selected voivodeships in terms of the accommodation base use

Year	Number of tourists staying at accommodation facilities:					
	Kuyavian-Pomeranian voivodeship		Warmian-Masurian voivodeship		Łódź voivodeship	
	Domestic tourists	Foreign tourists	Domestic tourists	Foreign tourists	Domestic tourists	Foreign tourists
2015	950 400	105 100	977 438	157 602	1 081 300	199 700
2016	1 072 700	120 500	1 120 365	160 199	1 042 800	167 900
2017	1 179 300	120 700	1 094 983	167 641	1 118 700	189 600
2018	1 183 400	116 600	1 146 228	162 345	1 156 400	194 900
2019	1 278 700	121 300	1 212 729	164 721	1 230 700	192 900

Source: own elaboration based on: Turystyka w województwie kujawsko-pomorskim latach 2015-2019; Informacja o ruchu turystycznym w województwie warmińsko-mazurskim w 2019 roku; Turystyka w województwie łódzkim w latach 2015-2019.

Table 4.

Percentage change in the number of the tourists staying at accommodation facilities in selected voivodeships

Year	Percentage variation in the number of the tourists staying at accommodation facilities:					
	Kuyavian-Pomeranian voivodeship		Warmian-Masurian voivodeship		Łódź voivodeship	
	Domestic tourists	Foreign tourists	Domestic tourists	Foreign tourists	Domestic tourists	Foreign tourists
2015	-	-	-	-	-	-
2016	12.87%	14.65%	14.62%	1.65%	-3.56%	-15.92%
2017	9.94%	0.17%	-2.27%	4.65%	7.28%	12.92%
2018	0.35%	-3.40%	4.68%	-3.16%	3.37%	2.80%
2019	8.05%	4.03%	5.80%	1.46%	6.43%	-1.03%

Source: own calculation.

Regions that are touristically developed can be identified in the Kuyavian-Pomeranian voivodeship. These regions' attractiveness results, inter alia, from: the communication infrastructure and the network of canoeing, hiking and cycling routes, as well as the culinary and hotel infrastructure. One important aspect affecting the region's attractiveness is the quality of the services provided. Its attractiveness have been additionally conditioned by various tourist-oriented offers, most important of which are canoeing trips, tour events, fairs, concerts and festivals, all organized with respect for environmental protection and the region's cultural heritage.

The above-mentioned tourist regions of the Kuyavian-Pomeranian voivodeship include (Guide-Tourism, 2020):

- the Tuchola Forest region,
- the Włocławek region, including the Włocławek Reservoir and the Gostynin-Włocławek Landscape Park,
- the Brodnica region, with its Landscape Parks: Brodnica Landscape Park and the Górzno–Lidzbark Landscape Park,
- the Koronowo region with the Brda River and the Koronowski Reservoir,
- the Kruszwica-Żnin region with the Lake Gopło,
- the Toruń region with cities of Toruń, Chełmża and Ciechocinek,
- the Lower Vistula valley with cities of Bydgoszcz, Chełmno and the Complex of Landscape Parks – Chełmno and Vistula Landscape Parks.

All of the above-listed tourist sites are characterized by ideal conditions for development of sustainable tourism, which has contributed to the significant increase in the region's competitiveness in terms of tourism development and the influx of tourists.

One of the advantages the Kuyavian-Pomeranian voivodeship exhibits is the constantly upgraded network of thematic trails and bicycle/hiking routes. This type of tourist attractions has not only increased the region's competitiveness, but most of all elevated the general awareness of environmental protection, the region's history and the local community's life.

Table 5 presents the number of different routes in the Kuyavian-Pomeranian voivodship, in comparison with selected voivodships.

Hiking routes prevail in the Kuyavian-Pomeranian region. Compared to the other voivodships presented in Table 5, the Kuyavian-Pomeranian voivodeship has the largest number of such routes. In the Warmian-Masurian voivodship, on the other hand, bicycle routes prevail, similarly to the Łódź voivodship.

Table 5.

Number of tourist routes in the Kuyavian-Pomeranian voivodeship versus selected voivodeships

No.	Type of tourist route	Voivodeship		
		Kuyavian-Pomeranian	Warmian-Masurian	Łódź
1.	Bicycle trails	75	105	44
2.	Hiking trails	126	35	21
3.	Thematic trails	4	18	9
4.	Canoeing routes	15	18	No data

Source: own elaboration based on: <http://www.szlaki.mazury.pl/>; <https://kujawsko-pomorskie.travel/pl/node/51395>; <https://wirtualneszlaki.pl/szlaki-piesze-lista>; <https://wirtualneszlaki.pl/szlaki-rowerowe-lista>; <https://szlaki.pttk.pl/index.html>.

Apart from the tourist attractions, the voivodeships' competitiveness is also determined by the number of eateries. Figure 1 presents the number of eateries recorded in 2010, 2015, 2017 and 2019 in the Kuyavian-Pomeranian, the Warmian-Masurian and the Łódź voivodships.

The above-presented data indicates that the Kuyavian-Pomeranian voivodeship offers more eateries than the other voivodships under examination.

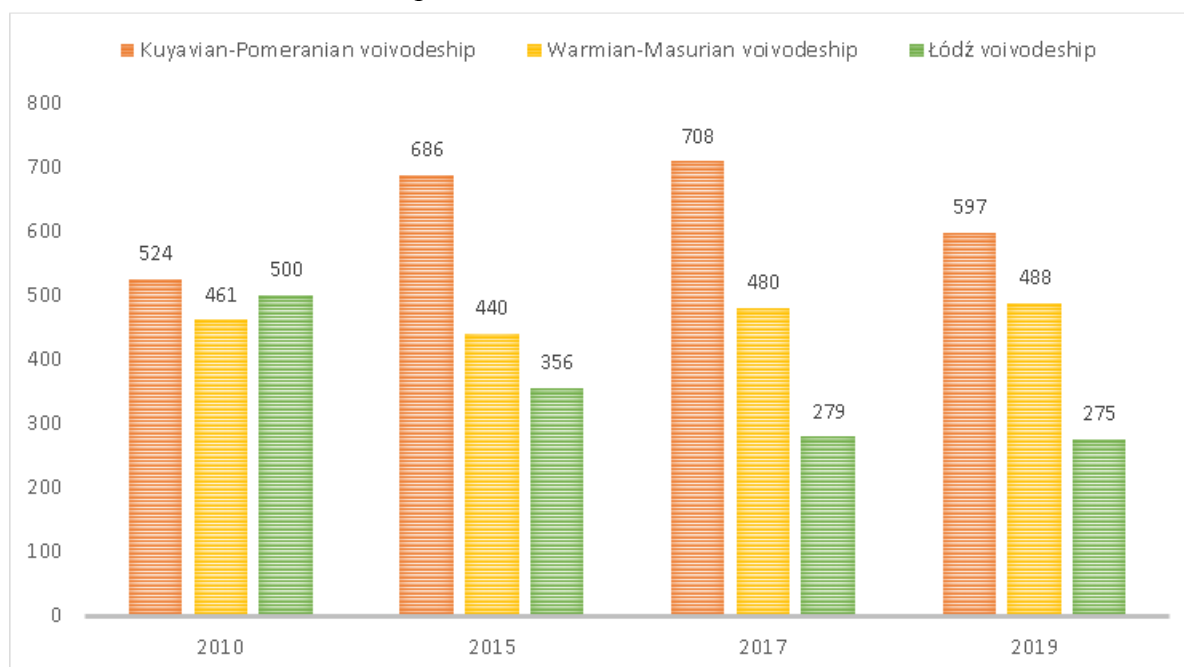


Figure 1. The number of eateries in the Kuyavian-Pomeranian voivodeship versus selected voivodeships in 2010, 2015, 2017, 2019. Adapted from: own elaboration based on: Rocznik Statystyczny Województwa Kujawsko-Pomorskiego 2019; Turystyka w województwie warmińsko-mazurskim w 2010, 2015, 2017, 2019 roku; Ruch turystyczny w Łodzi i województwie łódzkim w 2010, 2015, 2017, 2019 roku.

The TeH2O Water, Industry and Craft Trail created in 2012 may have contributed to the increase in the tourist competitiveness of the Kuyavian-Pomeranian voivodeship as well. The trail covers 15 sites located in Bydgoszcz. The TeH2O Trail facilities include: the Exploseum, the Granaries on the Brda River, the Mill Island, the Bydgoszcz Canal, the Soap and History of Dirt Museum, the Water Tower, the Museum of Photography, the Bydgoszcz Beer Brewery, the 'Pod Łabędziem' Pharmacy, the Waterworks Museum, the Bookbindery, the former municipal gas plant, the Woodworking Machinery Factory, the 'Lemara' Barge, the Bydgoszcz Canal Museum (the Water, Industry and Craft Trail in Bydgoszcz).

The trail's designation and development was one of the reasons for the increase in the flow of the tourists to the city of Bydgoszcz. Figure 2 presents the number of tourists visiting Bydgoszcz. It shows how the number of tourists increased each year. Due to the fact that the TeH2O thematic trail encompasses most commonly visited facilities, it can safely be stated that its existence has increased the tourist competitiveness of the city of Bydgoszcz.

The TeH2O Water, Industry and Craft Trail in Bydgoszcz has not only added to the tourist competitiveness of the Kuyavian-Pomeranian voivodeship, but also improved the city's attractiveness through the provision of a completely new offer. The trail combines history, technology and the care for the natural environment, which fits in the canons of sustainable tourism. Additionally, it has been a tourist attraction not only for those visiting Bydgoszcz, but for its residents as well. According to the information provided by Mrs. Kinga Puchowska, the TeH2O Water, Industry and Craft Route Coordinator, each year the trail is visited by 100 to 150 thousand people. The exact number of the people visiting the trail is quite difficult to be estimated, since a large number of tourists prefer recreation on the Mill Island or the Bydgoszcz Canal, which are part of the trail structure.

In 2006, the Wietrzychowice Cultural Park was established based on the Resolution of the Izbica Kujawska Commune Council. This park is located in the area of the Koło Forest District, encompassing 6 megalithic tombs estimated to be 5500 years old. The park's advertising campaign was based on the following slogan: 'Tombs older than Stonehenge or the pyramids in Egypt'. It is worth mentioning that after the infrastructure around the tombs had modernized and reconstructed, they were included in the Wietrzychowice Culture Park on the European Route of Megaliths.

Existence of the Culture Park has not only contributed to the increase in the tourist competitiveness of both the region and the town of Wietrzychowice, but also helped bring tourists back to other local towns. As part of the European Heritage Days, a festival called 'Time Machine' is organized annually in September. It helps promote the park and present some of the oldest and most valuable monuments in Europe. Local sellers can also present their products and services.

Surely one of the most recognizable places in the Kuyavian-Pomeranian voivodeship is the city of Toruń, advertised as 'The City of Nicolaus Copernicus', the 'Gingerbread City', the 'Touchable Gothic'. The most famous place in Toruń is the Old Town, which is on the

UNESCO World Heritage List. The places most visited in Toruń include: the Town Hall tower, the Planetarium, the ruins of the Teutonic Castle, the Copernicus House, the Gingerbread Museum, etc.



Figure 2. The number of tourist visiting Bydgoszcz, Toruń and Łódź in the years 2013-2019. Adapted from: own elaboration based on: *Badanie ruchu turystycznego w Bydgoszczy w latach 2013-2019*; *Monitoring ruchu turystycznego w latach 2013-2019*; *Turystyka w województwie łódzkim w latach 2013-2019*.

Figure 2 shows the number of tourists visiting the cities of Toruń, Bydgoszcz and Łódź. The above-presented data indicates that each year more tourists decided to visit the cities examined. It can be seen that Toruń is one of the most visited places in the Kuyavian-Pomeranian voivodeship, which results not only from the fact that the monuments are perfectly preserved, but primarily from the care for the history of the place and the respect for the local community's functioning.

5. Conclusion

The study attempted to define sustainable development and sustainable tourism. One of the most important documents on sustainable tourism, Agenda 21, has been discussed.

Based on the areas selected by the Author, where management is carried out in accordance with the principles of sustainable tourism, the influx of tourists in the Kuyavian-Pomeranian voivodeship has been analyzed. This allowed achievement of the objective assumed.

In the period under analysis, an increase can be observed in the number of the tourists visiting the two largest cities of the Kuyavian-Pomeranian voivodeship, i.e. Bydgoszcz and Toruń. The number of eateries operating in the Kuyavian-Pomeranian voivodeship increased each year, compared to the other two voivodships under examination. This has had significant impact on the voivodeship's increased tourist competitiveness. The Kuyavian-Pomeranian voivodeship additionally offers a large number of tourist routes.

The facilities or areas discussed not only contribute to increasing influx of tourists, but above all promotes development of new places, which are visited by travellers. As a result, the tourist competitiveness of the Kuyavian-Pomeranian voivodeship has increased.

Based on the analysis carried out, several conclusions can be drawn:

1. Owing to the increase in the inflow of tourists, both domestic and foreign, the sustainable tourism facilities discussed, such as the TeH2O Trail, the Wietrzychowice Cultural Park and the city of Toruń, can within a few years become important destinations for domestic, and perhaps also European, tourists.
2. It should be noted that sustainable tourism is not just another form of tourism, but a specific manner of tourism management. One of its main objectives is to create conditions under which coherence between the natural resources of a protected area and the needs of its local population as well as the needs of tourists and the tourism sector can be achieved.
3. The growing influx of tourists to the Kuyavian-Pomeranian voivodeship was an impulse to expand the accommodation and catering infrastructure.
4. Sustainable tourism and the facilities operated in accordance with its principles helped raise people's awareness of ecology, environmental protection and respect for the local community.

One very positive aspect entails the fact that the development of tourist facilities in accordance with the principles of sustainable tourism brought tangible economic benefits. These benefits mainly could be visible in the profits obtained from the facilities located near the tourist attractions, i.e. hotels, restaurants, stores, and souvenir shops. Development of sustainable tourism facilities reinforces a given region's competitive position by strengthening the cultural, social, economic and spatial ties. It can therefore be concluded that raised awareness of the care for the natural environment has been a stimulus for the local community and tourist activity, which contributes to the increase in the tourist competitiveness of the Kujawsko-Pomorskie voivodeship.

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EMPLOYER BRANDING AND EMPLOYEES' COMMITMENT IN INTERNATIONAL ENTERPRISES

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Purpose: Employer branding is one of the most important indicators of an organization's value. Employers use newer and newer tools to build and stimulate employee engagement. Their diversity should now be considered primarily in the context of culture and globalization processes including broadly understood internationalization. Many companies have focused on employee safety and stability. The focus was on trying to identify certain differences and similarities in this area.

Design/methodology/approach: Based on the collected statistical data, the authors' own observations and the subject literature on the research, an attempt was made to check the relationship between Employer Branding and employee commitment in international companies. For this purpose, a pilot study was carried out among 105 IT directors in Spain, France and Sweden. Purposive sampling was applied for the research sample.

Findings: The analysis of the results shows that there is a close relationship between the Employer Branding strategy and employee commitment in their work. The research results show both certain similarities and differences in the approach to the discussed issues from the perspective of different countries. Conscious building of the image of the organization as a perfect workplace for current employees and all groups of future stakeholders is the basic principle of every business activity. In order to become an employer of choice, an organization should follow clearly defined principles, trust its employees and satisfy their needs. The research has shown that a decrease in employee commitment in work does not always have a negative impact on the image of the employer, and the SOP strategy used has a positive effect on both the company's image and employee engagement. An alarming fact from the cited studies is the mutual lack of trust between owners and managers of individual enterprises and employees. Low employee commitment rates in individual countries may result from an incorrectly designed incentive system.

Practical implications: Knowledge and tools on building employee engagement in international IT companies can be used in other sectors of the economy, which will have a positive impact on the moulding of the relationship capital with stakeholders.

Social implications: As part of the SOP strategy, the following aspects are implemented: economic, social, environmental and ethical. The implementation of all these aspects positively

shapes the company's relations with its stakeholders, which is presented in the company's social reports.

Originality/value: The results of the research enrich knowledge about the relationship between Employer Branding and employee involvement in international companies.

Keywords: employer branding, employee engagement, organizational culture.

Category of the paper: research paper.

1. Introduction

Employer branding (EB) means building an employer brand. It is a long-term strategy focused on attracting talented employees, and especially on building their commitment, and thus on bonding them with the employer for a longer period. Committed employees become "ambassadors" of their organization, both inside and outside it. EB and building employee commitment can be ranked among the strategic processes of improving contemporary organizations around the world.

The actions and attitudes of leaders, the policy and practices of employers play a significant role in EB. A number of people and departments, including HR, PR and marketing, must be involved in the creation and moulding of the EB strategy. Employers use newer and newer tools to build and stimulate employees' commitment. Their diversity should now be considered primarily in the cultural context, globalization processes, including broadly understood internationalization. EB can be considered a new HRM trend that many companies operating in the world are part of.

The aim of this article is to indicate and compare the tools used to build and stimulate employee commitment and EB strategies by employers from selected European countries and to attempt to identify the differences and similarities in this area. For this purpose, a research study was conducted among 110 IT directors from France, Spain and Sweden.

The paper formulates a thesis that there is a two-way relationship between Employer Branding and employee commitment. Despite cultural, economic and political differences, it is possible to find joint organizational activities that have a positive impact on employee engagement and the employer's brand of multinational companies.

2. The concept of Employer Branding

It is thought that the precursors of the EB concept are S. Barrow and T. Ambler, who used the definition of EB that they formulated for the first time in a 1996 article entitled *The Employer Brand*. According to them, it is "a set of functional, economic and psychological

benefits offered through employment with a given employer, easily identifiable with a given employer's company" (Ambler, Barrow, 1996, p. 187). The economic benefits should be understood in the context of wages and salaries, the functional benefits in relation to the employee's development, and psychological benefits mainly in the context of a strong sense of identification with the organization.

In 1998, advisors from McKinsey consulting company joined the discussion on the essence and need of creating EB; they pointed to the fight for talents as a key determinant of building the employer's brand (Chambers et al., 1998, Axelrod et al., 2001).

Although the concept of employer branding has been in use for many years, there is still no definition compliance among authors. M. Kozłowski defines employer branding as "all activities undertaken by an organization, addressed at current and potential employees, aimed at building its image as an attractive employer and supporting its strategic business goals" (2012, p. 14). EB is perceived slightly differently by A. Mayo, who emphasizes that this concept should be understood as "everything that is communicated (consciously or not) to every current or future employee" (2001, p. 123). EB is also defined as "the sum of the efforts of an organization to communicate to current and future staff that the company is a desirable workplace" or as "attracting talented individuals to an organization and ensuring that both current and potential employees identify with the company (its brand and its mission) and deliver the results it desires" (Bednarska-Olejniczak, 2013, p. 17).

2004 was an important year from the point of view of shaping the EB concept. It was then that two scientific articles were published: one on employer branding (emphasizing the impact of external factors on building the employer's brand), and the other on employee branding (the influence of internal factors on building the employer's image) (Dąbrowska, 2014, p. 217).

Parallel to these concepts, a third concept appeared in the subject literature – a corporate brand model indicating the need for employers to build their brand. Again, there are two different stances on this issue: some scientists do not separate the employer's brand from the corporate brand, believing that brand assessment is affected by both external and internal factors (including M. J. Hatch and M. Schultz), while others take the opposite stance (Dąbrowska, 2014, p. 27).

3. Employer Branding and employee involvement

There are three key concepts of employee involvement (Juchnowicz, 2010, p. 34):

1. Commitment as a kind of employee's attitude.
2. Behavioural involvement, expressed in specific behaviour.
3. Commitment based on the mutual exchange of experience between the employee and the organization.

According to M. Armstrong, committed employees are genuinely interested, absorbed in, and even passionate about their work, which prompts them to undertake voluntary efforts that go beyond formal duties. On the other hand, the Gallup Institute (the oldest institute of public opinion research in the world) defines commitment as "joining in and being enthusiastic about work" (2009, p. 123).

"Employees' commitment can manifest itself in various forms: as organizational commitment to the company in which they are employed, as commitment to their work, profession or to the social environment in which they function" (Król, Kacprzak, 2016, p. 182).

For contemporary organizations, employee commitment becomes a business necessity. It affects profits, customer satisfaction and, undoubtedly, influences the creation of their image. The growing interest in the area of employer branding and building employee engagement is evidenced by the increasing number of contests for companies, e.g. Great Place to Work[®] Contest (BRIEF, 2019), the Best Employers Program – building an engaging organization/Aon Best Employers (Aon Hewitt) (BRIEF, 2018), or the Leader of Human Resource Management (IPiSS, 2019), which are becoming more and more of a success.

The Aon Best Employers program can be classified as the largest and most objective research and diagnosis of organizations in terms of employee commitment in Poland. So far, over 570,000 employees from companies of various scales of activity and employment have been surveyed during the 13th edition of the competition. Value estimation criteria were used according to four key factors: employee commitment, engaging leadership, high performance culture and credible employer brand.

In 2018, organizations such as: Egis Polska, Hotel InterContinental Warsaw, Mary Kay Poland, NUTRICIA ELN Polska, OMD Group, Vivus Finance Sp. z o. o., ANG Spółdzielnia, Benefit Systems SA., Grupa Pracuj, Pramerica Życie (soon Unum Życie), Grupa Hotelowa Orbis and Marriott International have been honoured primarily for creating a culture conducive to effective engagement and motivation of employees, primarily by implementing actions focused on employee satisfaction (including employee participation, fair remuneration and systematic, joint work on the company's values. The research results emphasize the strategic importance of engaging leadership and values such as respect, wise management, innovativeness and ensuring a sense of self-fulfilment (Warzybok, 2020).

It should be noted that the report developed by Aon Hewitt shows that, globally, there was a decline in employee commitment for the first time since 2012. The Aon Hewitt's analysis of more than 5 million employees in over 1,000 organizations around the world showed that employee commitment fell from 65% in 2015 to 63% in 2016 to 57% in 2017 and 52% in 2018. The largest decreases were recorded in France, Sweden and Spain (AON, 2020).

According to the report, employees of companies from the IT industry are much more likely to speak positively about their organization than employees from other industries. When the employee's market clearly prevails over the employer's market, the building of the image of the company as a good and attractive employer becomes particularly important. The Corporate

Social Responsibility strategy has a significant impact on the building of the employer's image. According to M. Žemigala (2007, p. 100), this strategy focuses on the issues of the external environment and aims at maintaining a balance between the interests of customers, employees and shareholders, as well as to provide certain services for the local community.

4. Material and research method

In order to check the relationship between Employer Branding and employee commitment in international companies, between July 12 and December 17, 2019, a pilot study was conducted among 105 IT directors. The research was done in Spain, France and Sweden. It used the diagnostic survey method including an interview technique and a research tool in the form of an interview questionnaire. The sampling was purposive as the research included enterprises employing 50-100 people, and the surveyed entrepreneur agreed to the study and had to be a director in an IT company and have at least 5 years of work experience in one corporation.

The research covered 105 directors, 35 from each of the three countries, i.e. Spain, France and Sweden. Each of the respondents represented a different company. An interview with each of the directors was conducted online using the Zoom application.

The obtained responses were grouped and statistically analyzed, using an Excel spreadsheet.

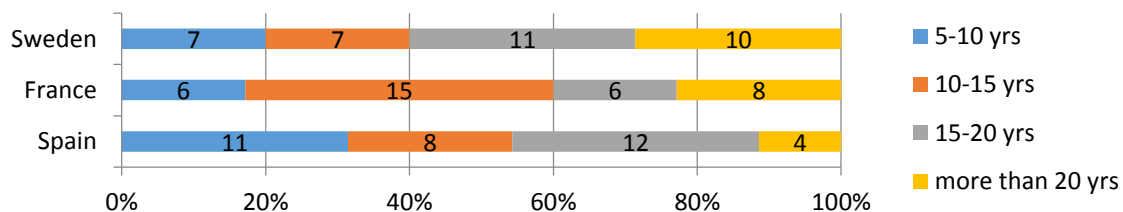


Figure 1. Work experience of the surveyed directors in IT companies. Source: author's own research.

Among the 105 surveyed IT company directors, the most (28.6%) had 10-15 years of work experience, and the fewest had over 20 years (nearly 21%). In Sweden, the largest number of directors – 31.4% – worked for 15-20 years, and 28.6% worked for more than 20 years. In France, the largest number of respondents had 10-15 years of experience (42.9%), whereas the largest number of directors in Spain had work experience of 15-20 years (34.3%) and 5-10 years (31.4 %). The work experience as a director in an IT company did not overlap with the overall work experience in a given company; as a rule, this period was shorter.

The IT company directors in all three surveyed countries were mostly male. In total, there were 77.1% of men. The remaining 23.9% of the respondents were women. An attempt was made to answer two research questions, namely:

- Does the decline in employee commitment negatively affect the image of the employer?
- Do the tools used in the Corporate Social Responsibility strategy have a positive impact on the image of the company and the involvement of employees in doing their work?

A set of key questions included in the interview questionnaire allowed to answer the research questions posed.

5. Research results

In order to find out what the relationship between Employer Branding and employee commitment in multinational companies is, Swedish, Spanish and French IT directors were asked to answer seven main questions. The first question – *How to recognize a committed employee?* – had similar answers provided by the directors from Sweden, Spain or France (Figure 2).

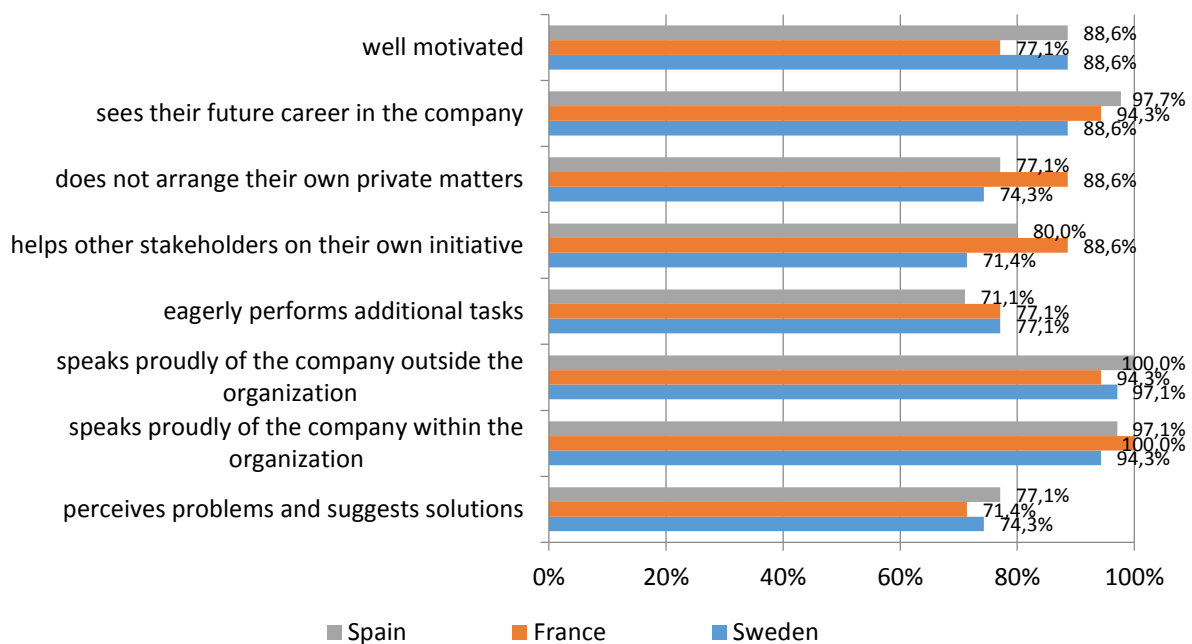


Figure 2. Employee commitment. Source: author's own study.

According to the Swedish directors, an engaged employee is one who sees problems and offers solutions, speaks proudly about the company and all its stakeholders, enthusiastically performs tasks that go beyond their scope of duties, and helps the company's stakeholders on their own initiative. The employee commitment assessment among the surveyed entrepreneurs is conducted twice a year, using the Gallup test (one of the most valued methods for measuring employee commitment, developed by the Gallup Institute).

According to the Spanish directors, a committed employee speaks positively about the company, performs his duties with enthusiasm and is motivated to apply themselves harder than specified in the scope of duties, and associates their professional future with the company.

The employee commitment assessment the analyzed enterprises is also carried out using the Gallup test, the employees are also subject to assessment by their subordinates, superiors and customers. If the survey results indicate low commitment, a direct, motivational conversation with the supervisor occurs.

On the other hand, the directors from France believe that an engaged employee speaks positively about the company both inside and outside the organization, does not take care of their private matters at work, and helps other stakeholders on their own initiative. The commitment is also measured using the Gallup test. This test is carried out twice a year unless clients or other stakeholders complain about the employees.

At this question, all the respondents primarily emphasized that a committed employee must take care of the good image of their employer. For this purpose, training courses in Employer Branding are organized in France and Spain for all employees to make them realize the importance of positive perception of the brand by stakeholders. The respondents also emphasized that an engaged employee should approach all their tasks with enthusiasm, despite having a negative approach towards them. On the other hand, the directors from Sweden pointed out in their statements that, when signing an employment contract with an employee, they established a joint incentive system, which is consistently being implemented.

The second question was: *Does the prestige of the company affect the engagement of newly hired employees?* All the directors (100%) agreed that the employer's image had a positive effect on newly hired employees (Figure 3).

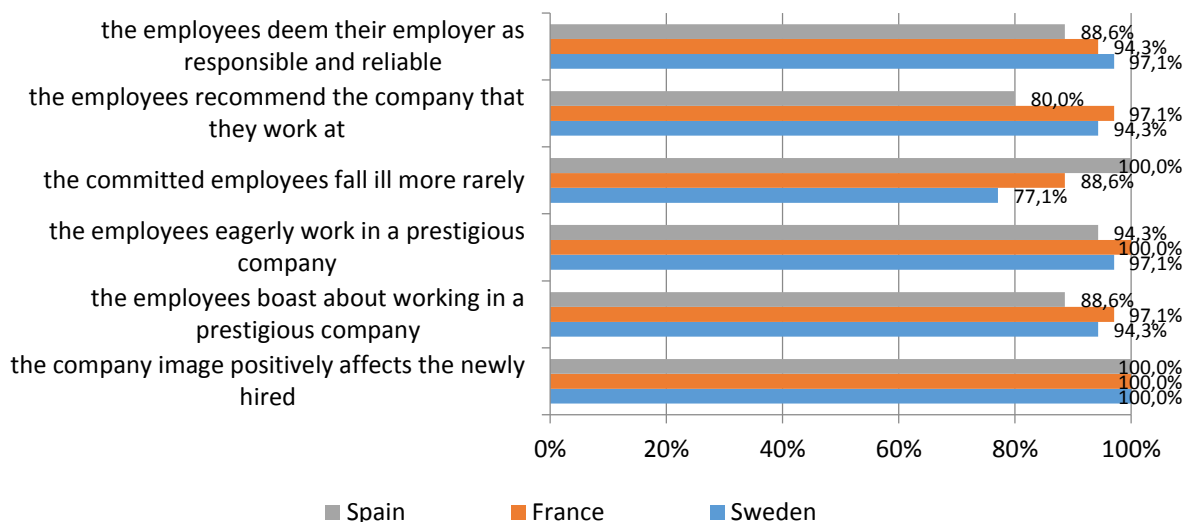


Figure 3. The significance of the company image for a newly hired employee. Source: author's own study.

The Swedish and French directors emphasized that their employees boasted in social media that they worked in prestigious companies and recommended the company online as a responsible and reliable employer. The Spanish executives have observed in their companies that the level of commitment of a newly hired employee enables a prediction of their level of achievement at work, while absenteeism among employees who are engaged in their work is lower than among those who show a lack of commitment. The next question was: *What affects the lack of employee commitment in the work performed?* The responses of the Swedish directors differed from those of Spanish and French directors, which in turn were similar (Figure 4).

According to the directors from Sweden, the lack of commitment of their employees results from excessive bureaucracy in the company, the lack of opportunities for professional development, no frequent bonuses, many years of work, routine in performing the same tasks and little or no trust in employees. In the directors' opinion, the age of the employee also affects their commitment to work. It was observed that employees aged over 45 showed greater commitment to work than younger employees.

According to the Spanish directors, the lack of commitment of their employees may result from direct superiors, who do not praise for a job well done, but only criticize for every shortcoming, inappropriate people promoted to managerial positions, lack of trust in employees in the implementation of key projects, lack of quick promotions.

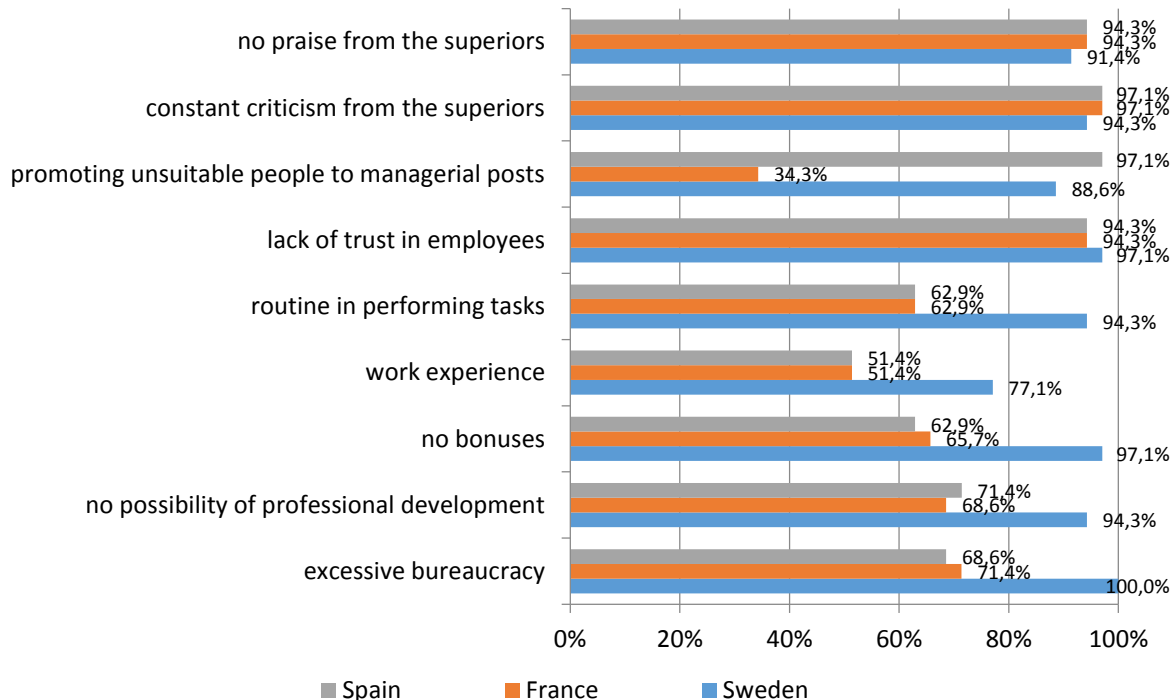


Figure 4. Lack of employee commitment in the work performed. Source: author's own study.

The responses of French directors largely coincided with those of their Spanish counterparts. In an interview, four directors emphasized that, in their company, neither employees nor their superiors trust each other, and this is due to the fact that the management staff disclosed information about the company's strategy and goals to the competition. The directors also noted that the employees involved in their work did not need supervision of their superiors, and the control by their superiors only demotivated them and so they achieved worse results.

All the surveyed directors were also the owners of their enterprises so it should be assumed that the answers were provided from the perspective of the employer. All the respondents also emphasized that one of the factors that affected the lack of employee involvement was the mutual lack of trust between the employer and the employee.

The question: *Does the decrease in employee involvement in work affect the image of the employer?* had the same answer from all the respondents (100%). They unanimously agreed that the involvement of employees in their work has a direct impact on the image of the employer. They also emphasized that there were cases of decreased employee commitment to work, but if they were short, i.e. up to one month, they did not have a negative impact on the image of the employer. Five Swedish executives (14.3%) described a situation where their employees had defrauded the company's customers and suppliers, which resulted in a decrease in the number of customers and a negative opinion in the press. The respondents also emphasized that their long-term employees have, after several years, developed the so-called passive commitment, i.e. attachment to the organization and remaining therein, but the commitment of the employees in this group is constantly monitored and information is provided to immediate superiors on an ongoing basis.

The question: *Are the tools of Corporate Social Responsibility used to shape a positive image of the employer, and if so, which?* had all the respondents reply that they did use some CSR tools in their enterprises that have a positive impact on the image of the enterprise.

The Swedish directors most often organize charity actions targeted at the disabled (82.7%), and environmental campaigns (80%) to make the local community aware of environmental issues. The Spanish and French owners donate a part of their profit to organizations supporting the homeless (71.4%), give free computer operation and sales technique training courses for the unemployed (68.6%) and donate part of their profit to environmental organizations (62.8%). They also apply transparent management and the ISO 9000 has been implemented in all the companies. The directors from Spain also emphasized in their statements that their employees voluntarily engaged in CSR activities by providing help especially to the sick, the elderly and the poor who needed this help (88, 6%).

The answers to the following question: *What rates of commitment to work did your employees achieve?* gave reasons for reflection as the work commitment rates, based on the Gallup test, were very low in all the companies in question: in France 20-30%, in Sweden 25-35%, in Spain 20-35%.

The last question concerned Employer Branding tools used in the Swedish, French and Spanish enterprises (Figure 5). According to the French directors, the most popular EB tools are: job fairs, recruitment videos with employee participation, social media, and ‘open doors’ in the company. According to the Swedish directors, the most commonly used EB tools are: the professional career tab on the company website, social media, recruitment advertisements, campaigns at universities,

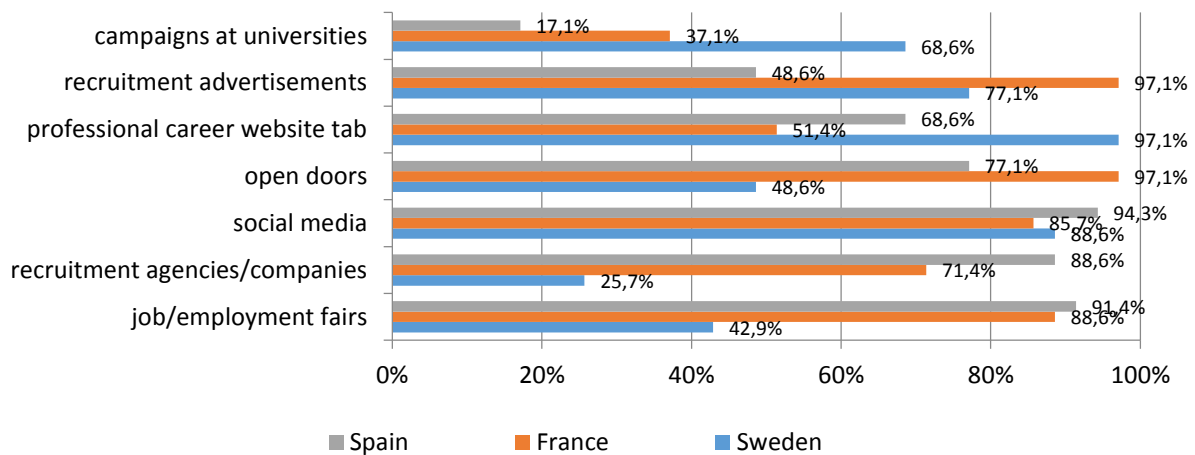


Figure 5. Employer Branding tools used in the surveyed companies. Source: author's own study.

Finally, the Spanish directors most often used social media, job fairs, recruitment videos featuring the company's employees, open doors, career website tabs.

Summing up, it should be stated that the set of key questions contained in the interview questionnaire made it possible to answer the research questions posed. The research done has shown that a decrease in employee commitment to work does not always have a negative impact on the image of the employer, and the applied CSR tools have a positive impact on both the company's image and employee commitment. The mutual lack of trust between owners and managers of the individual enterprises and their employees appears to be a disturbing phenomenon. Low employee engagement rates in the individual countries may well result from that lack of trust.

6. Instruments for building and stimulating employee commitment and Employer Branding – the European context - results of empirical research

The role of the immediate superior in building and stimulating employee commitment in work is crucial. According to the Aon Hewitt report, employees under their immediate superiors identify them as representatives of the employer who builds and stimulates their commitment (www.pulshr.pl, 2020).

The question here was: *How is employee commitment built and stimulated in Sweden, Spain, France?* The Swedish IT directors pointed to the factors that influence building and stimulating employee commitment. In their opinion, these include:

- motivating setting of goals and accounting for work results (68.6%),
- adjusting the scope of duties and task structure to the needs, aspirations and capabilities of employees (62.7%),
- involving employees in the decision-making process by delegating decision-making powers and responsibilities (48.6%),
- communicating to employees the importance of their work for the results of the team, and thus the entire company (42.9%),
- providing constructive feedback, both positive and negative (40%),
- building an appropriate culture (based on cooperation) and a team working atmosphere (37.1%),
- providing employees with development opportunities (82.8%),
- supporting employees in maintaining a balance between work and private life (51.4%).

The Spanish directors listed the following as factors building and stimulating employee commitment to work:

- best employee contests (77.1%),
- flexible work system (88.6%),
- daily communication with the superior (68.6%),
- providing employees with opportunities for professional development (74.3%),
- employee training (54.3%),

Finally, the responses of the directors from France coincided with those of their Swedish colleagues. Most of the respondents emphasized in their statements that employee commitment is built through appreciation, namely:

- visits by the president at workplaces and talking to employees about their everyday professional problems (42.9%),
- lunch with the board or senior management for outstanding employees (34.3%),
- congratulatory letter, diploma, etc. for outstanding employees (71.4%),
- contests for employees, which greatly appreciate involvement in extra tasks, effective cooperation with others, activity in project teams, implementing improvements, introducing innovations, etc. (51.4%),
- coupons for employees for products manufactured/sold by the company (71.43%),
- celebrating employees' birthdays by handing in greeting cards, flowers or a company gadgets (42.9%).

All the respondents emphasized that the factors correctly applied to the expectations of employees influenced the increase in employee commitment in work, which in turn affected the company's economic results and its image.

7. Summary and recommendations

There is a close relationship between the Employer Branding strategy and employee commitment to work. The research results show both similarities and differences in the approach to the discussed issues from the perspective of different countries. Conscious building of the image of the organization as a perfect workplace for current employees and all groups of future stakeholders is the basic principle of every business activity. In order to become an employer of choice, an organization should follow clearly defined principles, trust its employees and meet their needs. These activities will result in employee commitment to work, which will positively translate into the company's image.

It should be noted that organizations should develop individual strategies for the development of human capital based on effective systems of motivating and building employee commitment, systematically examine satisfaction of their employees, implement WLB (work life balance) programs, demonstrate great flexibility in scheduling working time, improve the organization's communication system and also, or above all, to shape and cultivate a culture and atmosphere of trust. The assumed thesis has been confirmed, which means that, despite cultural, economic and political differences, it is possible to find joint organizational activities which positively influence employee commitment and the employer brand of international companies.

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PROMOTION OF THE CITY AS AN ELEMENT OF TERRITORIAL MARKETING IN THE FIELD OF TOURISM

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Purpose: Analysis of the literature on the subject in the field of territorial marketing, promotion and communication of the local government unit with the environment. Identification of manners to promote cities based on the observation of such activities.

Design/methodology/approach: The article is a review of the literature on promotional activities.

Findings: The main problem of the work was to answer the question whether promotion plays a communicative function of territorial marketing for social development. The answer to the question is confirmative, because promotion plays one of the most important roles in the marketing activities of local government units. In the case of tourism areas, tourism promotion is of particular importance, as it is part of the economic promotion of local governments, whose task is to improve the living conditions of the local community.

Research limitations/implications: The text refers to a limited number of studies. The issues presented in the article require empirical confirmation on a larger number of examples.

Practical implications: The conducted analysis allows to conclude that the concept of managing settlement units must include promotional activities that allow the achievement of the intended strategic goals.

Originality/value: The conclusions presented in the paper are an extension of the threads present in the literature on the subject, indicating the mutual relations between territorial marketing and promotion for the development of tourism.

Keywords: tourism promotion, city marketing, territorial marketing.

Category of the paper: The article is a review based on the literature on the subject.

Introduction

Tourism is an inseparable part of the global economy, it undergoes regular evolution, which is mainly caused by new expectations and requirements of tourists. Along with the development of cities and regions, tourism has become their essential element. In addition to its many functions, it interferes in many areas of the economy, allows for the display and promotion of

unique values characteristic of specific tourist reception areas. Strong competition from free market economy entities increases the marketing campaign of cities, which are important actors on the tourist market. The consequence of the competitive struggle is the high position of regions on the market of tourist services, which contributes to the increased importance of promotional activities as a way of boosting tourist traffic. Nowadays, every city, commune and even district - if they wish to develop - should conduct active marketing and promotion. It became necessary to implement the principles of marketing orientation, which in turn results in promotion activity.

Territorial marketing in region's development

The subject of considerations in this paper is the city – a tourist reception area¹, therefore presenting the meaning of territorial marketing by tourism regions become important. It turns out that motivating tourists solely with the tourist values of a given place is not absolute but relative; thus, it is necessary to carry out specific marketing activities by the tourist regions' authorities mainly in order to increase the number of tourists and to reduce the seasonality effect. Activities carried out by local governments aimed at achieving the given goals on the tourism market are an example of territorial marketing.

Territorial marketing was born from the general theory of marketing, at the beginning referring to activities supporting the sale of products and services. A. Szromnik (2015) defines territorial marketing as a philosophy *achieving the assumed goals by spatial settlement units in a competition for limited resources, based on the belief that the correct orientation to 'clients-partners' is decisive for the results*. In turn, T. Markowski (2006) defines territorial marketing as *a set of techniques and activities used by local communities and organizations in the process of planning a project of economic, tourist, urban, social, cultural development or an identity project*. In the broadest sense, territorial marketing means the entirety of coordinated activities of local, regional or national entities, aimed at creating processes of exchange and impact by means of recognizing, shaping and satisfying the needs and desires of residents (Frankowski, 2000).

To identify who is selling what and to whom, territorial marketing contains three levels. The first level includes a planning group that consists of initiating entities that prepare, implement and coordinate marketing activities for the entire region. The second level defines all marketing measures that are the instruments of influence of the planning group.

¹ A tourist reception area (tra in short) is defined as a destination for tourist traffic and, depending on the situation, it may refer to a commune, region or country. See more [in]: E. Dziedzic, *Obszar recepcji turystycznej jako przedmiot zarządzania strategicznego, Monografie i Opracowania*, [Tourism reception area as an object of strategic management, Monographs and Studies], published by Szkoły Głównej Handlowej, Warsaw 1998, p. 9.

These include resources, conditions and features of a spatial unit that generate benefits for the interested reference groups. With regards to tourist regions, the tools for stimulating opinions, attitudes and behaviors of people and institutions are tourist values and attractions, tourist and para-tourist infrastructure, the image of the place and the hospitality of the region's residents. The last level (third one) identifies target markets by directing the offer by the planning group to the group of recipients of the marketing activities undertaken. Their main task is to shape opinions and behaviors in such a way that decisions made by market entities are favorable for a given region and provide it with a competitive advantage over other regions. Proper planning of activities at all three levels should lead on the one hand, to building a positive relationship between the local environment, including the directly interested end beneficiaries and social partners. On the other hand, by showing the material and social effects obtained in a regional, national and EU scale, lead to systematic return of the city's competitiveness and attractiveness for investors, tourists and culture-seekers.

Tourist destinations² seek to gain an advantage over their rivals in order to obtain the highest possible income from this sector of the economy. Their aspiration is to create an offer of attractive tourist products that will be more advantageous than the products of other cities, which will allow them to increase revenues. Success in the tourism market requires cities to stand out from their rivals, display and emphasize their uniqueness. In the fight for a potential tourist, cities improve their products and raise their quality.

The intention of the local government authorities of tourist regions is to develop an appropriate product that will be adjusted to the needs and expectations of buyers, and to offer it at the right time and in the right form. For that, it is necessary to define the correct target groups³ to which the product will be directed. Depending on the adopted division criteria, various groups of addressees of marketing activities can be distinguished. With regard to the tourist reception area, the main groups of recipients are identified on the external and internal market.

Internal recipients, i.e. recipients located in the region, are permanent residents of the tourist region, economic entities (both entities related to tourism and para-tourism activities, as well as entities completely unrelated to tourism activity, functioning only during the tourist season), local and regional associations and organizations, local government at the appropriate level, public institutions and enterprises.

² Destination is a term used in the context of tourism and can be defined as a mixture of individual products and experiences that, when combined, provide an overall experience in a visited area. P. Murphy, M.P. Pritchard, B. Smith, *The destination product and its impact on traveler perceptions*, Tourism Management, no. 21, 2000, p. 43-52.

³ According to A. Szromnik, the target market is: "a segment or segments of the market covering a group of relatively homogeneous entities, to which the planning team addresses an appropriately composed product offer and other marketing activities in order to convince, acquire or maintain it". [in] A. Szromnik, *Marketing terytorialny. Nowe obszary i narzędzia [Territorial marketing. New areas and tools]*, published by. edu-Libri, Kraków-Legionowo, 2015, p. 61.

Another group of addressees of territorial marketing activities are external recipients which include all entities and persons from outside the area of a given unit, who may be interested in using the tourist product of a given region. The main goal of marketing activities addressed to this group of recipients is to convert potential tourists into real tourists, and in the next phase, occasional tourists into regular tourists.

Tourism is a tool which supports cities in attracting investors, stimulates economic growth, accelerates the modernization of facilities, and also contributes to changing the image of a place and strengthening its marketing potential. Local governments more and more often use the strategies of reviving urban areas through tourism. An attractive and easily accessible tourist product will attract more and more tourists. For tourist destinations, this is a great opportunity to increase income, reduce unemployment, and develop infrastructure. Proper management and use of region's resources will contribute to increasing the tourist attractiveness of a given area, increasing the number of tourists and maximize regional benefits, which in turn will result in improvement of the living conditions of the local community.

Success in the tourism market requires cities to stand out from their rivals, display and emphasize their uniqueness. Tourism competitiveness of a given place depends primarily on a properly developed tourist and sports infrastructure, natural potential, location, security, rich cultural and natural resources, as well as the ability to use them properly. The above-mentioned elements have a huge impact on the perception of the city as a tourist object that is designed to encourage and attract tourists. Responding to the needs of recipients and reading their needs skillfully are the elements that will determine whether a city - by competing with another destination, will find buyers on the market and gain their recognition.

City as a tourist object

Looking at a city as a tourist object requires the definition of two key issues – the city and tourism. American urban sociologist R.E. Park wrote: “A city is more than an agglomeration of units equipped with communal goods, such as: streets, real estate, electric lighting, trams, telephones, etc. The city is also something more than a simple constellation of institutions and administrative apparatus: tribunals, hospitals, schools, police stations and offices of all kinds. The city is a state of mind, a set of customs and traditions, attitudes and sentiments, inseparable from these customs and transmitted by tradition” (Park, 1915). So comprehended and quite complex understanding of the city allows us to look at it as a product of human nature, the special feature of which is its specific "urban instinct". First of all, the city contains in its layout and image the content of its past and character (cultural content), it contains an abundance of attractions, it is a space shaped for various types of users (including tourists), it is also a specific place of various identities.

A characteristic feature of tourism development is the growing share of cities as places of concentration of tourist traffic. The changes taking place in the world (increasing wealth of societies, development of transport, freedom of travel, evolution of new technologies) have made tourism not only a global phenomenon but also an important factor of globalization.

Big cities and metropolises, which have always been a tourist destination, play an increasingly important role in this process. According to C. Law (2002), nowadays tourism has ceased to be "an essential element of the economic landscape of most cities" but it has also become a catalyst for their development and revitalization processes. The aim of stimulating tourism in the city is its social and economic development.

The essence of tourism is undoubtedly the movement of tourists to towns and regions with attractive recreational, historical or landscape values, outside their usual place of residence. C.R. Goeldner and J.R. Ritchie (2006) emphasized the essence of tourism from the point of view of its development and management in tourist reception areas (such as large cities or metropolises), defining tourism as "processes, activities, and outcomes arising from the relationships and the interactions among tourists, tourism suppliers, host governments, host communities, and surrounding environments that are involved in the attracting and hosting of visitors". Tourism defined in this way refers to a broad approach to the tourism economy, and also emphasizes important relations between various stakeholders and the surrounding environment connected to the development of tourism.

In the city-tourism relationship, the term tourism in urban areas or urban tourism is used. According to A. Kowalczyk (2002), this concept should be understood as all forms of tourism that take place in urban areas, forms of tourism directly related to the values and development of tourist facilities of a given place, and tourism, the purpose of which is to visit and learn about a city treated as a cultural heritage and recognized as an indivisible element of tourism space. The specific features of urban tourism include short stays of guests, less pronounced seasonality compared to recreational areas, a dominant share of foreigners, relatively large tourist expenses, the existence of qualified tourist service staff and the possibility of using the existing infrastructure without the need for significant financial outlays (Baczwarow, 1999). Tourism in urban areas is a broadly understood predisposition and symptoms of tourist activity, which includes tourists, tourist values, a wide tourist and accompanying base, all economic entities involved in tourist service and institutions working for incoming tourism (Mika, 2011). Tourism in the city is complex and heterogeneous, corresponding to the wealth of motives driving the visitors. Business, cultural wealth, desire for entertainment, gastronomy, shopping, participation in events are the main motives for traveling to cities. Tourism in an urban area, taking various forms (e.g. cognitive tourism, recreational tourism, cultural tourism or health tourism), has many dimensions and is often focused on achieving many goals at the same time. The main factors attracting a modern tourist to a big city are presented in figure 1.

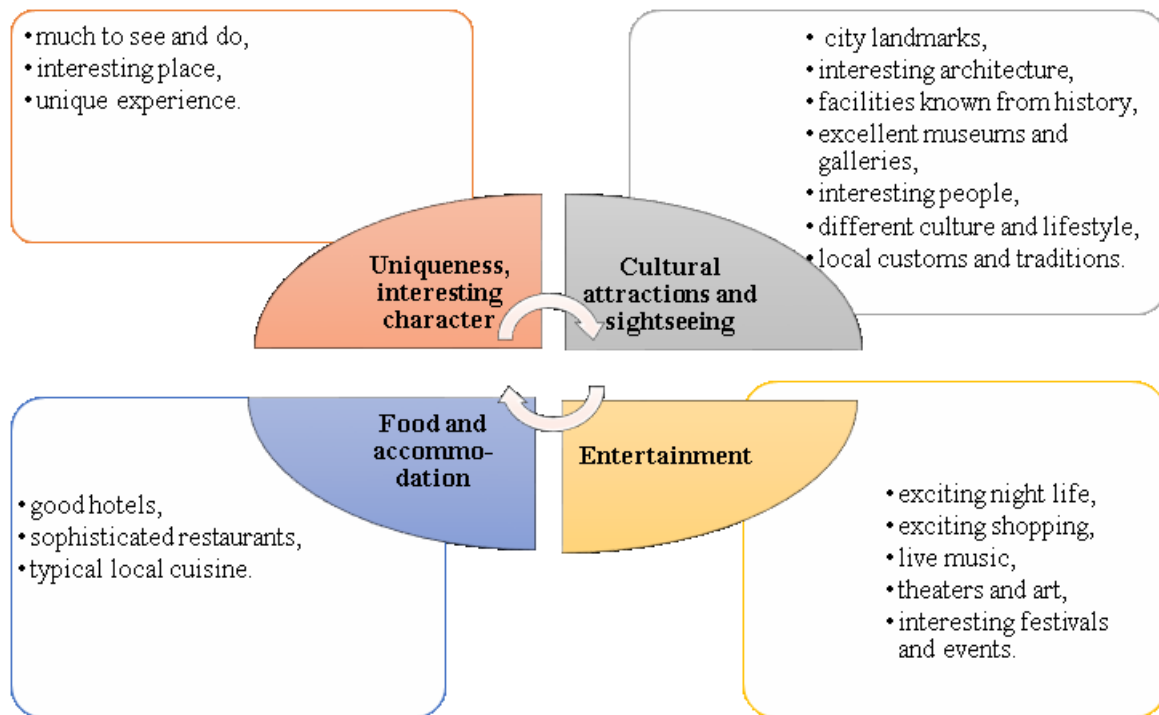


Figure 1. Factors attracting tourists to big cities. Source: M. Jansen-Verbeke, E. Lievois, *Analysing Heritage Resources for Urban Tourism in European Cities* [in:] *Contemporary Issues in Tourism Development*, collective work edited by D.G. Pierce, I.R. Butler. Routledge, London 1999, p. 88.

The factors that attract a modern tourist to a large city presented in Diagram 1 are the subject of tourist consumption. They show broadly understood recreation in free time – including cultural, sports and entertainment services that can be used by city visitors and residents. The aforementioned factors cause the city to be perceived as a tourist object with well-developed tourist expenditure, i.e. values, technical and economic infrastructure facilities, basic and supplementary devices connected functionally and spatially. Factors attracting a modern tourist to the city are very diverse and the repeated visits to cities are determined by developed cultural, commercial, gastronomic services and various types of events related to contemporary culture, entertainment, sports, etc. Cultural heritage itself, if it is not ‘surrounded’ with events and other attractive products, does not generate repeated visits.

The development of tourism in cities is primarily the consumption of city products. The manner of using the urban space depends on the motivation of tourists' visits. A city perceived as a tourist object must be characterized by a set of specific elements, which include: cultural space, entertainment space, commercial space, space for economic and religious activities, as well as sports space (Ashworth, Voogd, 1990). Only a city with such composition will be able to generate tourism in the city.

Promotion in city marketing

The problem faced by today's tourist cities is to prepare the right message that promotes its values. The success of a territorial unit on a turbulent tourism market no longer depends on knowing the needs of buyers or offering the highest quality services or products. In the era of information hype, constant dialogue between regions and its consumers through targeted and strategically implemented promotion is essential.

Tourist promotion and its instruments are constantly evolving due to the constant changes taking place in society (the formation of new trends and lifestyle, the progress of digitization, development of technology or transport). This forces the territorial units which are implementing the promotion to recognize the current trends in the tourism market. The growing awareness of tourists and the fashion for a healthy and active lifestyle has led to the displacement of the traditional 3S motivation model (sea, sun, sand) in favor of a 3E model (entertainment, excitement, education). The place of passive rest on the beach was taken by physical activity, expanding knowledge, experiences, and active entertainment (Kruczek, 2010). Thanks to the prevailing trends, one can notice a decline in the interest in nature and culture-dependent tourism in favor of a product characterized by active participation and gaining experience in an environment saturated with culture. Based on the tourist infrastructure, the innovative role of the offer has increased, and the development of tourism has also taken place in areas which have no tourist values in their traditional sense. The modern tourism market is very competitive, which means that entities must undertake specific promotional activities, without which they would be unrecognized, due to the richness of the competitors' offers.

Tourist promotion plays one of the most important roles in the marketing activities of cities and regions. According to V.T.C. Middleton, it is the most distinct tourism marketing mix instrument (Middleton, 1996). When defining tourism promotion, it can be assumed that "it is a set of means of communication used to create knowledge, interest and a positive image of a well-known or new tourism product in order to attract tourists to it" (Rapacz, 1997). Promotion is the advertisement of the tourist goods of a place both on the external and internal market by conveying positive content. The aim of the promotional activities of local government units is to strengthen their position on the inbound tourism markets, as well as to stimulate the sale of tourist products that are offered in a given region.

The purpose of promoting the city is to provide potential tourists with information encouraging them to visit a given place. The promotional activities of cities are aimed at, among others, attracting potential investors and extending tourist seasons. Promotion serves to shape awareness of the existence of a given offer, product or service, and also provides buyers with information. It also stimulates the purchasing needs of potential buyers of products and services.

The process of communication is a composition of means with a diverse internal composition and various functions. According to M. Florek, in territorial marketing, promotion is all activities related to communication of a territorial unit with the environment, including informing about the region, convincing about its attractiveness and encouraging the purchase or consumption of territorial sub-products (Florek, 2013). Promotion of the city is a logical, coherent and comprehensive concept, implemented through various means and methods of conveying a set of information to the environment in order to inform, persuade and finalize the purchase of a territorial product. The city's promotion strategy is based on a variety of forms, techniques and measures that stimulate the decision of the city's potential buyers. The promotion of territorial units does not boil down only to informing the addressee, it also extends the knowledge about the city and its values. Providing information about the unique values and advantages of a place, cultural facilities, regional traditions and customs are a determinant of attractiveness for tourists.

Promotion should be adjusted to the goals of the territorial unit and its market situation. The aim of the promotion of territorial units is to strengthen the image and brand of the city, inform the environment about the functioning of the city, its activities, as well as emphasizing its values (Raszkowski, 2010). When defining a tourist promotion, it should be assumed that "it is a set of means of communication used to create knowledge, interest and a positive image of a well-known or new tourism product in order to attract tourists to it" (Rapacz, 1997). In modern terms, it means managing a dialogue with the market environment by establishing and maintaining partnership relations. In modern economy, it is impossible to imagine a region or city functioning without communicating with entities from the market environment. Each area of the tourist reception, wishing to exist on the market, provides information about its products and communicates with the environment.

Means to promote cities

Marketing activities of cities are focused on acquiring development factors important for them. The main tool for influencing target markets is an appropriate system of communicating their values. Interesting facts about the place and obtaining information from interested persons comes down to informational co-operation with entities of the city market. Informing about the advantages of a place entails a decision on the selection of appropriate promotional instruments, which are the basis in the marketing planning process. Promotional activities of territorial units are characterized by a different scope, nature, composition and transfer techniques. Many ways and carriers of information are listed in the literature. The communication activity of cities and regions boils down mainly to informing about the features and properties of a place, which shapes repeatable messages in the recipients. Promotion of the city is a deliberate and conscious

process of presenting the resources and opportunities offered by the unit being promoted. It consists in using convincing arguments of the superiority of a specific offer over those of competitors. Promotion conducted in this way is a multidirectional and coherent activity which leads to being interested in a place, the desire to get to know it, which in turn in the recipient's mind will result in creation of a desire to visit the given location.

The turn of the last decades was an expression of changes in the field of forms, methods, techniques and means of communication (see figure 2). Andrzej Szromnik included them in a set of the following trends (Szromnik, 2015):

- from verbal promotion to image and symbolic promotion,
- from promotion focused on a single action to a comprehensive promotion,
- from ad hoc promotion to permanent promotion,
- from promotion carried out with own craftsmanship to professional promotion carried out by specialized marketing agencies,
- from general promotion to targeted promotion,
- from the promotion "what we have" to the promotion "what we make possible",
- from mass promotion to individual promotion,
- from promotion based on numbers and facts to promotion based on experiences and emotions,
- from traditional promotion to promotion using modern technologies,
- from direct promotion to indirect promotion,
- from open promotion to implicit promotion,
- from paid promotion to free or partially paid promotion,
- from implemented promotion to coordinated promotion.

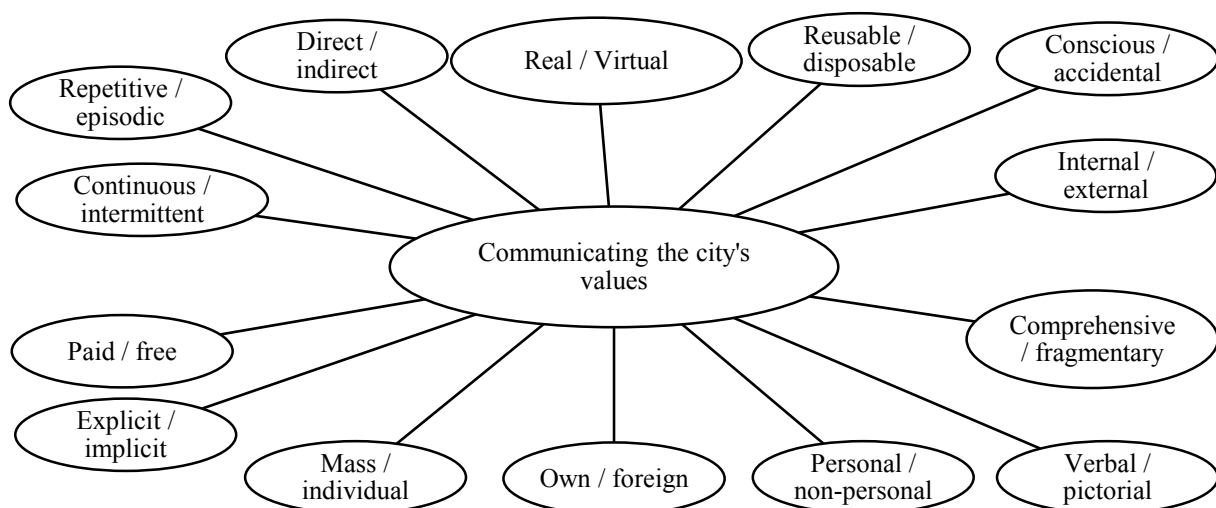


Figure 2. Taxonomy of forms of marketing communication of the city's values Source: A. Szromnik, *Marketing terytorialny. Nowe obszary i narzędzia* [Territorial marketing. New areas and tools], published by: edu-Libri, Kraków- Legionowo 2015, pp. 101-102.

The essence of city promotion is communication with target groups, defining ways to reach them and setting adequate promotion instruments to achieve the goals. It is necessary to build a communication system between the city and its recipients for this purpose. In the literature on marketing, there is no leading criterion for the classification of promotion tools in this area, and different definitions of the internal structure of promotion by various authors make the promotion tools freely identifiable, which causes terminological disorder.

Defining promotion tools in the structure of communication processes causes many problems, especially when analyzing them. In the eighties of the last century, H. Meffert (1986) divided the structure of the marketing communication system into four instruments, such as personal communication, advertising, sales promotion, and public relations. At the same time, a slightly different nomenclature was used by P.D. Bennet (1988), dividing the communication system into advertising, sales promotion, public relations and publicity, and personal sales. In the next decade, Ph. Kotler (1994) defined the internal structure of the marketing communication system as instruments of promotion and communication, distinguishing advertising, sales promotion, public relations, personal sales and direct marketing. Two years later, M.J. Thomas (1998) called the communication system a value communication system, dividing its instruments into sales force, sales promotion and advertising. Entering the XXI century was the beginning of many changes, also in the field of marketing communication. With the development of technology, many new promotional instruments have appeared. Ph. Kotler together with K.L. Keller (2012) expanded the composition of marketing communication tools by providing the following instruments: advertising, sales promotion, event and experience marketing, public relations and publicity, direct marketing, interactive marketing, word of mouth marketing and personal sales.

In order to show the range of interpretation of the structure of the marketing communication system, I shall quote the communication-mix instruments by M. Bruhn (2013), who distinguishes 9 components, such as: advertising, sales promotion, fairs and exhibitions, direct marketing, sponsorship, social media communication, event marketing, personal communication and public relations.

The above examples show various elements of the internal structure of a marketing communication system. According to J.W. Wiktor (2013), who made an extensive comparative analysis, *isolating various elements and assigning them different conceptual content causes the emergence and operation of a concept conglomerate with a not very consistent and quite freely interpreted internal structure*. It should also be noted that with so many promotion elements there is a problem of the proportion of the use of each of the elements.

In the case of promotion of an area, place or city, an important element in the marketing planning process is the selection of appropriate promotion instruments, that is the promotion-mix. Promotion-mix instruments differ in the choice of means used, but their common goal is to attract customers to the product and make them buy it. From the point of view of promoting the city as an area tourism product, groups of instruments such as advertising, public relations with publicity, personal promotion and sales promotion are dominant. Due to the constantly

growing importance of territorial marketing, the awareness of the importance of using promotion for the development of the region will grow. An example of marketing activities with the use of promotion instruments in territorial terms is presented in the Table 1. The universal nature of the elements of the promotion instruments allows it to be used in promotional activities of many cities and territorial units.

Table 1.

Examples of promotional activities in terms of territories

Promotion instrument	Types of actions carried out by the local government units
Advertising	outdoor, press, radio, television, internet and ambient advertising.
Public relations and publicity	study tours addressed to media representatives, cyclical cooperation with the media, press conferences, implementation of a visual identification system, websites, image management through social media, videos, audiovisual materials, sponsorship, lobbying activities, tourist fairs, events, information about the region and city, newsletters, radio and TV broadcasts, press articles, cooperation with tourist organizations (including POT, LOT, ROT), charity benefits.
Sales promotion	discounts provided by local entities to tourists; contests with prizes; gadgets; souvenirs with the logo of the city, region; shows and tasting of local specialties; loyalty programs for tourists; free or subsidized training for representatives of the media, tourism industry, scientists, local community; tax relief; free training for residents; discounts on services for residents.
Personal promotion	promoting the city; informing about its tourist values (e.g. as part of the Tourist Information); promotion of the city and the region by employees of the Municipal Office outside the Office (fairs, conferences, events, outdoor events, etc.); contacts with investors; statements by public authorities; meetings with residents.

Source: own study.

The adopted composition of marketing communication tools in tourism is characterized by the presence of many types of forms that have individual features and specific applications. The presented instruments and forms of promotion used by territorial units are the basic means of communication used by local government units. Cities, wanting to be perceived as modern and developing, are looking for forms of promotion that would give them a new dimension, increase their attractiveness, credibility and, as a result, public interest.

6. Conclusions

The conducted analysis of the literature on the subject matter allows to conclude that promotion is an inseparable element of territorial marketing of particular importance for cities and regions. In the course of the theoretical and cognitive work carried out, it has been proved that promotion plays one of the most important roles in the marketing activities of local governments. In the case of tourism regions, tourism promotion is of particular importance, as it is part of the economic promotion of local governments, whose task is to improve the living conditions of the local community. It turns out that the city is a tourist product which, thanks to the use the right mix of instruments, can contribute to the development of the local community.

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THE CONCEPT OF TEACHER TRAINING CO-FINANCED BY THE EUROPEAN UNION IN THE TEACHER TRAINING SCHOOL MODEL

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Purpose: The aim of the article is to present the concept of training directed at teachers in the Teacher Training School model.

Design/methodology/approach: The article presents the assumptions of the Teacher Training School as a modern system of supporting teachers' competences. The possibilities of co-financing the establishment and running of training schools in Poland under the Human Capital Operational Programme 2014-2020 were presented. The training offer for teachers was discussed and characterized in an exemplary project co-financed by the European Union: „Teacher Training School model in Niemcz and Osielsko" based on the expectations of teachers in the light of the pilot studies conducted on a sample of 52 people. Finally, recommendations for the organization of the training process for teachers were indicated.

Findings: The article presents the assumptions of the Teacher Training School as a modern system of supporting teachers' competences.

Research limitations/implications: Assessment of the effectiveness of the created teacher training school on other schools, with the use of integrated resources of local institutions established to support the work of the training school, will be possible only after the completion of the project.

Practical implications: The planned evaluations of 42 training schools established in Poland will allow to verify long-term effects, including the effectiveness, relevance and durability of the changes introduced in the process of professional development and teacher education.

Social implications: The priority of educational policy in Poland is to ensure an effective system of education and continuous professional development of teachers which will respond to real needs of a school and will allow teachers to improve their professional competences and develop their workshop. The implementation of the Teacher Training School Model in Poland will have a social dimension directly affecting teachers' and indirectly pupils' key competences.

Originality/value Based on the results of the pilot studies, satisfactory conclusions for the needs of teacher education in EU projects were drawn.

Keywords: training, development, teachers, competences, project, European Union.

1. Introduction

Professional training of teachers is an integral part of the education system which significantly affects the quality of a teaching process. This is particularly important as teachers' high competences are correlated with students' learning outcomes. Professional development is a process of increasing employee qualifications, the knowledge of which must be constantly supplemented, developed and modernized at the workplace (Wysocka, Hajdukiewicz, 2016, p. 2). Many researchers emphasize that the improvement of employees' workshop will serve to strengthen their competences more if it is of practical nature, based on observation and exchange of experiences among teachers. The research results clearly show that high efficiency is built by a teacher not only through participation in training, but also through cooperation with other teachers and the opportunity to participate in joint projects at school. In Polish schools, however, such activities are rarely undertaken on the school premises (Hernik, Malinowska, Piwowarski, 2013, p. 5).

The priority of educational policy in Poland is to ensure an effective system of education and continuous professional development of teachers which will respond to real needs of a school and will allow teachers to improve their professional competences and develop their workshop. Schools, as well as teacher training institutions, should develop towards learning organizations, and by undergoing permanent evaluation, improve their development (Hajdukiewicz, Wysocka, 2016, p. 7). At the same time, it is important to promote the self-education system of teachers (Fila, Matuszczak, Rybińska, 2015, p. 43), and the principals of these institutions should play a key role in education (Fischer, Taylor, 2012, p. 235; Kordziński, 2010, p. 10).

The possibility of co-financing the teacher education system from EU funds allowed the commencement of work on a new model of improving and raising competences by teachers. Work in this area was carried out by the Ministry of National Education in Warsaw as part of the project: "Supporting the creation of training schools" implemented by the Education Development Centre (ORE) in 2016–2018. The developed concept was tested during a 10-month pilot project (in 2017-2018) which allowed the formulation of conclusions and recommendations for the creation of Teacher Training Schools in Poland (www.ore.edu.pl).

2. Assumptions of the Teacher Training School

The Teacher Training School according to the model is: “a set of planned activities of schools (training schools and cooperating schools) and institutions supporting the learning process of teachers and students (...), “a school where future teachers will experience practical verification of the theory learned during their studies, and working teachers can improve their work techniques in cooperation with other teachers (...), “in the training school, a student under the guidance of a teacher will face educational practice in the areas of education and upbringing, and teachers will develop their workshop and share their ideas with other teachers” (Model szkoły ćwiczeń, 2019, p. 4).

The training school must take into account the cooperation and effective use of specialists and institutional resources from the local education environment:

- leading authorities (local governments),
- support centers (psychological and pedagogical counseling center, pedagogical library, teacher training center),
- universities (teaching schools).

Systematic cooperation of the institution with the training school is crucial for its development because the involvement of experts and resources will allow, on the one hand, to build the potential of the training school, and on the other – to popularize its achievements in the local environment (Zasady współpracy szkoły ćwiczeń, 2019, p. 2).

The education support system constructed in this way will be consistent with the directions of education policy, conclusions from pedagogical supervision, local education strategies and will respond to the needs of teachers from supported schools. The organization of the support system depends on the involvement of the leading authorities because local governments together with teacher training institutions, pedagogical libraries and psychological and pedagogical counseling centres should initiate cooperation and strategically plan joint activities for the development of local education (Goćłowska, Soćko, 2015, p. 43).

The model training school is to be a place for disseminating innovative activities supporting the development of students' key competences with particular emphasis on teaching foreign languages, mathematics, natural sciences, information and communication technologies and sharing knowledge and skills by teachers. At the same time, the training school should actively cooperate with other schools, support institutions and universities. In the scope of activities supporting the development of students' key competences the principals and teachers of the training school are obliged to promote and implement the use of innovative didactic, organizational and educational solutions in other schools. The training school should also be perceived as an institution implementing the local education strategy in terms of preparing the graduate to function on the labour market.

3. Possibilities of financing Model Teacher Training Schools from the European Union funds

A chance to finance the establishment and operation of teacher training schools in Poland in accordance with the model concept developed by Education Development Centre (ORE) is the Knowledge Education Development Operational Programme (OP KED) for 2014-2020. EU projects may finance activities related to the preparation of schools for teacher training, established teacher training programmes, professional development, training for teachers of training schools in the field of methods and forms of didactic work (Szczegółowy Opis Osi Priorytetowych PO WER, 2019, p. 98-99).

The Ministry of National Education in Warsaw, as the Intermediate Body for Measure 2.10 "High quality of the education system" OP KED, announced in 2018-2019 two competitions under which the authorities managing schools could obtain funding for the creation and operation of training schools in accordance with the "Model szkoły ćwiczeń" established by the Education Development Centre (MEN, POWR.02.10.00-IP.02-00-005/18; MEN, POWR.02.10.00-IP.02-00-003/19).

Currently, 42 training schools across Poland are being created from the EU funds. They will carry out tasks in the field of professional development and teacher training and it is also planned to include each of these schools in the support process.

According to the competition regulations, activities that can be financed under the established training school (consisting of at least one and a maximum of four model schools), which will support at least seven cooperating schools are the following:

- diagnosis of the needs of supported schools which will be affected by the created training school,
- workshops for trainers (teachers) and teaching staff of training schools in the field of methods and forms of didactic work,
- conducting activities of the training school, including training and practical development for professionally active teachers in the field of developing key competences for students, practical training of students from pedagogical studies with the use of didactic and methodological materials supporting the professional development of teachers and practical preparation of students within training schools, evaluation of activities undertaken in order to verify the goals and determine the next possible actions.

In order to implement the above-mentioned assumptions in training schools for a particular school year, it is necessary for the school to conduct support for teachers of each of the 4 subject areas (foreign languages, mathematics, natural sciences, information and communication technologies):

a) in the obligatory form:

- cooperation and self-education networks (at least 1 network for teachers of one subject area – at least for a period of 6 months, including at least 3 classroom meetings, 6 teaching hours each, and on-line work on the doskonaleniewsieci.pl platform),
- demonstration lessons (minimum 4 demo lessons for each subject area),
- methodological workshops (minimum 2 workshops - at least 6 didactic hours for each subject group),

b) in an optional form (2 forms to choose from):

- individual and collective consultations, supervision,
- student internships,
- conferences, seminars,
- discussion forums,
- blogs, other social media,
- development of teaching materials for teachers, students, internship supervisors in printed and multimedia forms (e.g. films, educational games).

4. The concept of teacher training on the example of the Teacher Training School Model

As part of the project "Teacher Training School Model in Niemcz and Osielsko", a number of activities have been planned that will lead to the achievement of the project objective: "Improving the functioning of the school support system in the development of key competences and universal skills on the labour market by preparing, supporting and jointly creating a training school by the Agata Mróz Primary School in Niemcz and the Polish Olympians Primary School in Osielsko, thanks to the implementation of comprehensive and complementary tasks: equipping classrooms in the training school (task 1), strengthening the competences of 52 school principals and teachers in the field of methods and forms of didactic work (task 2) and professional training of 62 school principals / teachers of supported schools in the field of conducting effective methods of work, developing key competences and universal skills of students (task 3) in the period from 01/01/2021 to 31/07/2022".

One of the tasks planned in the project is to strengthen the competences of school principals and teachers in the field of methods and forms of didactic work as part of workshop training. Teachers' competences must be strengthened because teachers as trainers of the training school will conduct demonstration lessons for students and teachers of supported schools. Thanks to the implementation of task 1, demonstration lessons will take place in classrooms equipped accordingly to each of the 4 thematic areas:

- mathematics area – 20 hours of demonstration lessons in maths,
- natural sciences area – 36 hours of demonstration lessons in the following subjects: natural sciences, biology, chemistry, physics, geography,
- the area of communication and educational technologies – 20 hours of IT demonstration lessons,
- language area – 20 hours of demonstration lessons in English and German.

In order to adjust the training process in the project to the needs and expectations of teachers (future trainers of the training school), a pilot study was carried out on a sample of 52 people – potential trainers of the training school, using a questionnaire. The survey asked about the barriers faced by teachers who benefit from trainings, teachers' expectations regarding the organization of trainings and teachers' needs in terms of the content of trainings. In the last part of the questionnaire the surveyed teachers were asked to indicate the most important attributes (features) of a good training programme.

During the pilot studies teachers raised numerous concerns that should be overcome in the project. The most important barriers include:

- time barriers – reluctance to participate in direct forms of support due to the significant workload, hence the project should provide a support schedule in consultation with teachers, and most of the methods and forms of activity can be conducted online on the internet platform (www.doskonaleniewsieci.pl),
- financial barriers – insufficient financial resources for teachers' participation in professional development, hence the support in the project (training, materials, catering) must be free,
- mental barriers – teachers' reluctance to cooperate and share knowledge with other teachers and concerns about the low value of training, hence the integration of the teaching environment is planned, and training organizers must ensure a high level of education corresponding to the diagnosed training needs of teachers.

The expectations regarding the high substantive value of the training are confirmed by the research carried out by House of Skills which shows that the lecturer (trainer) plays a significant role in the training process. He should:

- have a charismatic personality (be open, warm, specific, determined, courageous, resourceful, aloof, professional to win the group's trust),
- have flexibility and the ability to adapt the content of education to the needs of recipients and their problems, take care of the appropriate pace of training and involvement of participants,
- have appropriate substantive knowledge and expert experience to be an authority for the participants.

Potential participants of the training support had the following expectations towards the organization:

- short training forms (up to 6h),
- post-work training (after 2 p.m.),
- small training groups (up to 15 people),
- homogeneous groups consisted of teachers who teach similar subjects e.g. mathematicians, natural scientists, linguists.

The teachers' needs in terms of content discussed during trainings indicated the legitimacy of supporting seven issues in the amount of about 6 clock hours in the following topics:

- building innovative teaching programmes and lesson plans,
- creating one's own interactive teaching materials and making use of available materials on the web,
- the use of scientific experiment methods, experience and observations from life in education,
- the use of effective learning strategies according to students' sensory preferences, including the latest trends in motivating students to learn,
- shaping interpersonal and social skills of students – practical dimension (individual and group exercises, projects, games, simulations),
- the use of modern information and communication technologies, including support for modern ICT tools (interactive board, 3D printer, smartphone, tablet, computer clouds),
- online safety rules – cyberspace and cyber opportunities as well as ergonomics rules in the use of computer equipment.

According to teachers, the most important attributes (features) of good training are:

- teacher trainer – able to establish very good rapport with participants, creating a nice atmosphere, well prepared, being an authority in his field,
- training methodology – training conducted with the use of multimedia, activating methods of working with participants (experiments, exercises, discussions), valuable training materials at the end of the training,
- training content – training should give an opportunity to share knowledge and experiences with other participants, provide modern knowledge helpful in everyday work, theoretical knowledge should be supported by examples from life, training should encourage reflection and inspire further learning.

The above-mentioned features of good training are consistent with 17 attributes of training diagnosed in literature on the subject (Fazlagić, 2014), hence they may be helpful in preparation of training evaluation tools for teachers.

5. Summary

Assessment of the effectiveness of the created teacher training school on other schools, with the use of integrated resources of local institutions established to support the work of the training school, will be possible only after the completion of the project. The planned evaluations of 42 training schools established in Poland will allow to verify long-term effects, including the effectiveness, relevance and durability of the changes introduced in the process of professional development and teacher education.

Based on the results of the pilot studies, the following conclusions were formulated for the needs of teacher education in EU projects:

- the schedule and hours of support for teachers should be communicated to teachers in advance and adjusted to their preferences which will allow participants to be involved,
- training and materials as well as catering during the training should be free of charge for participants which will minimize the costs of teachers' participation in training,
- participants should be recruited within homogeneous groups teaching similar subjects which will enable the exchange of experiences and improve the process of sharing practical knowledge among teachers,
- the methodology of classes should be based on a short introduction (lecture), individual or group exercises, using case studies and involving participants in discussions and exchanging good practices which will allow to refer to the experiences and knowledge of participants in accordance with the Kolb cycle (experience-reflection-generalizing-application),
- didactic means and tools must be varied, the trainer should use a variety of media as much as possible (flipchart, multimedia presentation, interactive board and computer programmes) which will improve perception and activate participants,
- the trainer should establish very good rapport with participants, create a pleasant atmosphere, be an expert and authority in their field which will have a positive impact on teachers' perception of the content of education,
- the content of education should be adapted to the diagnosed needs of participants and the training should convey practical knowledge that can be applied in everyday professional work, encourage reflection and inspire further learning.

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IMPLEMENTATION OF FORECASTING TOOL IN THE LOGISTICS COMPANY – CASE STUDY

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Purpose: The main aim of following article is the implementation and results analysis of created forecasting tool. Created tool is a tool for automated prediction of future demands level in chosen distribution networks where logistics operator is acting as a service provider.

Design/methodology/approach: Article shows the conception of created forecasting tool and presents the deviations of forecasts from real values.

Findings: Logistics enterprise could implement the forecasting tool to improvement their own activity. However it demands depth assortment analyzing and also it demands supporting the processes of automated forecasting by forecasting processes based on quality and mixed methods.

Originality/value: The value of following article is showing the new function of logistics enterprise which is demand forecasting. It could be also a value added activity which logistic operator could offer to their customers.

Keywords: distribution network, forecasting, logistics operator, R software.

Category of the paper: Case Study.

1. Introduction

Following article is aimed to showing the possibility of automated demand forecasting tool in logistic enterprise. It assumes testing results in created forecasting algorithm in chosen distribution network. Main feature of these network is the fact of logistic operator occurring. Logistics operators are one of the market trends nowadays. Logistics, which is entrusted to external, specialized entities, is referred to as outsourcing or contract logistics (Murphy, and Wood, 2011). It is important, according to Krawczyk, to don't identify contract with outsourcing, because it is no synonymous with permanent function transferring to external unit (Krawczyk, 2019). Transferring means ordering to specialized external entity some logistics functions. The most common directions of outsourcing are (Bendkowski, 2008): IT, HR, distribution, logistics, finance and accountancy.

Logistics operator is defined as contract service provider, who is acting to maximum use of assets and improving operational activities (Skowron-Grabowska, 2011). He is a logistics service provider who provides variable range of logistics activities in the name of manufacturer or retailer. The decision to use operators' services is often based on strategic considerations, when the company recognizes that one or more elements of its business must change (Murphy, and Wood, 2011). Outsourcing a certain range of service to operators gives manufacturers opportunity to constantly improve their products and quality.

2. Forecasting as a new logistics operator function

Operator's competition in nowadays market takes place mainly not by offering the lowest price, but by ensuring the visibility in supply chain, reliability and positive attitude to innovations (Cichosz, 2018). Additionally, there is a possibility, that operators act a main role in configuration of whole distribution networks. They can take a management decisions connected in ex. with transportation management, distribution, customer service, warehousing and other activities connected with continuous improvement. Customers are striving for more and more advanced services, which are offered by operators. In contract logistics operators' type of 3PL (Third-Party Logistics) play major role. 3PL is an external organization which ensure realization of logistics function (Marasco, 2008). They are providing variable services. To the most common it could be included services as: external transportation, negotiating and concluding transportation' contracts, warehousing or load consolidation (Murphy, and Wood, 2011). Some of logistics operators are extended their services by complementary services (like products assembling or co-packing). Major of 3PL definitions approved that the main aim of these entities is providing the logistics services, but in author' opinion, they could also provide more sophisticated and going beyond logistics services.

One of trends in logistics trade is increase of services complexity and demand for logistics services packages (LSP) (Zelowski et al., 2018), which are often referred to as bundled services. This trend also concerns one of the basic service providing by operators – transportation and forwarding services, which are enclosed by the range of variable accompanying activities (Witkowski, and Kiba-Janiak, 2012). Enterprises in networks more often choose to collaboration enterprises which offer more than one service. It could be draw a conclusion that logistics operators could be more competitive by offering services complementary with basic logistics services which could be also a demand for products forecasting. Demand forecasting for some authors is considered as one of the major area of machine learning application (Hirt et al., 2020), which is one of the most important trends in nowadays science. Forecasting skills of logistics operator was considered in the literature a skills which could support logistics operator in inventory management in spare parts (Ayiomamitou, 2016; Dombi et al., 2018),

in prediction of transportation service demand (Grzelak et al., 2019), in forecasting dedicated to own fleet optimization (van Aarde, 2017) and in forecasting supporting last mile deliveries (Sirikulvadhana et al., 2019). However, forecasting proposed by author, assumes complex solution conneted with demand for products forecasting for whole distribution network. Main idea of these conception is transferring the function of centralised forecasting to logistic operator who is acting in distribution network (Kmiecik, 2020). In following article is showed a conception of forecasting tool which could be implemented in logistic company and which could be used for automated time series forecasting.

3. Research methodology

Forecasting tool, which could be implemented in chosen logistic operator activity, was created in programming language R. R language is software intended to statistical calculations. In following article the conception of forecasting script integrated with operator WMS (Warehouse Management System) was showed. The main aim of these tool is automated demand for products forecasting based on time series of particular products releasing database. General assumptions of script was shown in figure 1.

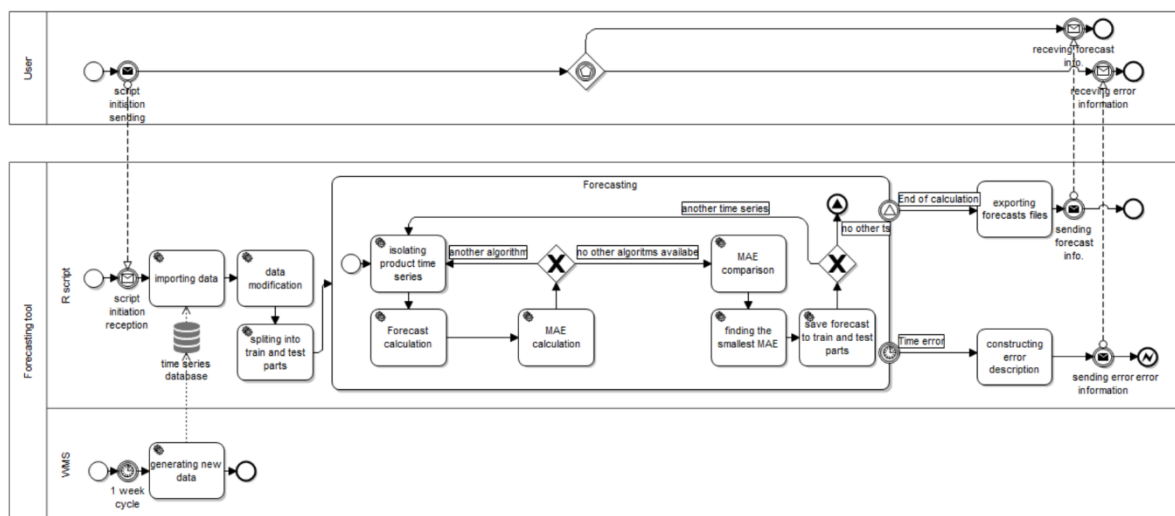


Figure 1. Process of forecasting tool work in BPMN 2.0 notation.

Tool is integrated with operator' WMS. New data was sent periodically – once per week. Data, after user initialization, are imported to script with actually database. In the next step data are modified. First modification includes files format adjusting to R requirements and removing outliers and cleaning the time series. Time series to cleaning are selected based on variation index, where time series with too much value of that index are clean. In the next stage time series are dividing to train and test parts. In train parts algorithms adjusting the calculations and in test parts the results of adjusting are tested. Whole forecasting process takes part in the loop

individually for each products. Results to further analysis are chosen based on minimum MAE (Mean Absolute Error) values. After calculation and choosing proper results based on MAE forecasts are exported to user readable format.

Research sample on which performance of presented tool was tested consist of 22 distribution networks. These networks are characterized by the fact of logistics operator occurrence. This operator manage his own WMS and has the fully access to data contained therein. Data take into analysis reflect daily products releasing, forecasts are calculated in 42 days horizon with weekly data updating. Table 1 shows short characteristic of considered networks.

Table 1.
Brief characteristic of distribution networks

DN no.*	Food or non-food	General products	number of products	DN no.*	Food or non-food	General products	number of products
1	food	pastas	90	12	non-food	cosmetics	267
2	food	meat	150	13	non-food	cosmetics	427
3	food	sweets	38	14	food	sweets and snacks	779
4	non-food	household chemicals	691	15	non-food	household chemicals	221
5	non-food	electrical products	42	16	food	baby food	607
6	non-food	perfumes	509	17	food	beverages	86
7	food	sweets	75	18	food	bio-food	110
8	food	beverages and bakes products	510	19	food	snacks and sweets	768
9	non-food	toys	935	20	non-food	construction stuff	447
10	non-food	tobacco products	773	21	non-food and food	cosmetics and food	1917
11	non-food	tobacco products	283	22	food	sweets	254
*DN no. – number of distribution network							

Distribution networks are classified in 2 basic groups (based on main subject of material flows) - food and non-food. Additionally there was also specified main range of assortment, which is the subject of material flows and products quantity. Forecasted and real values are the values in the minimal logistics units (usually in cartoons) which go to the retail points.

4. Results

By using created tool the daily forecast to 2 further weeks was calculated. To simplify results presentation, the values of forecasts was aggregated to week values and showed in table 2.

Table 2.
Forecasts results in two weeks period

DN no.	Week 1			Week 2		
	Real	Forecast	Deviation	Real	Forecast	Deviation
1	27 590	40 177	45,62%	36 804	36 097	1,92%
2	9 377	12 035	28,35%	33 249	12 944	61,07%
3	11 760	10 955	6,85%	7 501	10 779	43,70%
4	320 324	375 991	17,38%	228 325	318 367	39,44%
5	9 656	9 016	6,63%	11 460	8 141	28,96%
6	8 994	10 345	15,03%	9 785	18 852	92,66%
7	21 007	30 467	45,03%	58 930	33 604	42,98%
8	386 905	668 437	72,77%	384 185	698 745	81,88%
9	126 149	80 747	35,99%	143 793	98 738	31,33%
10	3 902 969	3 982 563	2,04%	3 060 298	4 141 224	35,32%
11	13 486	22 802	69,08%	13 718	23 896	74,20%
12	520 547	540 570	3,85%	362 398	547 581	51,10%
13	535 431	557 476	4,12%	408 431	478 386	17,13%
14	349 621	374 063	6,99%	348 128	406 145	16,67%
15	58 087	127 727	119,89%	276 461	134 661	51,29%
16	306 767	334 436	9,02%	407 690	365 500	10,35%
17	37 771	50 366	33,35%	42 249	54 877	29,89%
18	88 922	149 935	68,61%	269 603	150 101	44,33%
19	5 595 450	2 292 048	59,04%	8 968 250	3 810 589	57,51%
20	36 017	37 791	4,93%	24 781	34 632	39,75%
21	3 229 510	3 557 618	10,16%	3 552 655	3 587 030	0,97%
22	149 222	168 859	13,16%	182 301	169 669	6,93%

Additionally, in figure 2 was also showed summary results (aggregated to 2 weeks). These results was presented in the radar chart. Numbers around the chart perimeter show the number of distribution network. Percentage values in the chart show forecasts deviation from real values in the period of 2 weeks.

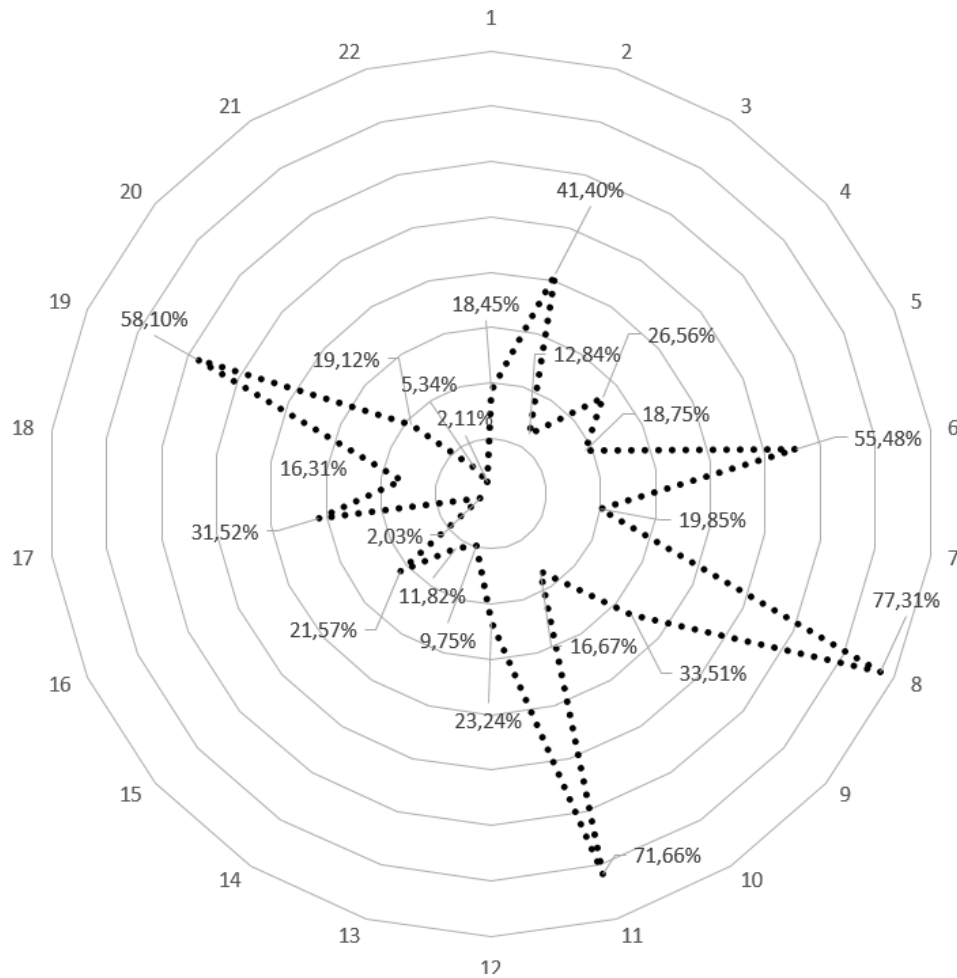


Figure 2. Total forecasts deviation from real values (2 week period).

In presented chart and table it is visible that in some of distribution networks operator could make forecast using created tool. The networks that tend to accurately forecast demand over the period of two weeks are: no. 16. baby food, no. 22. sweets, no. 21. cosmetic and food and no. 13. cosmetics. Deviations in this networks was lower than established 10% and was adequate: 2,03%; 2,11%; 5,34% oraz 9,75%. Networks which at this stage show high forecasting abilities and the forecasts deviation from the real values is less than 20% are: no.14. sweets and snacks (11,82%), no.3. sweets (12,84%), no.18. bio-food (16,31%), no.10. tobacco products (16,67%), no.1. pastas (18,45%), no.5 electrical products (18,75%), no.20. construction stuff (19,12%) and no.7. sweets (19,85%). In the rest of networks forecasts deviations are larger than 20%. Forecasts results, in author opinion, could be more accurate after using additional assortment grouping and exclusion from automated forecasting products from Z group (according to XYZ classification). Forecasts for these products could be calculated using an example quality or mixed methods.

5. Conclusion

The article reached the main goal. It showed the possibility of implementation and usage of forecasting tool in logistic company acting in distribution network. Tool created in R language allowed to automated time series forecasting based on database integrated with WMS.

Testing the tool on selected distribution networks indicated that a logistics company can support its activities with such a tool. Tool implementation could result in improved operational work by better planning and adjusting activities to forecasts level. Currently logistics operator based activities on experts experience and conjectures, so using tool based on statistical calculations could improve logistics operator work and could be the value added to their service recipients.

Additionally to improve the tool it is necessary to do results analysis individually for each product. It is also necessary to XYZ classification according to forecast accuracy and forecast ability. After such activities should be separate products which has high ability to automated forecast based on mathematical calculation. For the rest of products it should be adjusted other ways of forecasting, based on example on quality or mixed methods.

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THE LEVEL OF CONSUMERS' INCOME AND THE DEVELOPMENT AND STRUCTURE OF RETAIL TRADE ON THE EXAMPLE OF WIELKOPOLSKIE AND PODLASKIE REGIONS

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Purpose: The paper explores the relationship between income factors and development parameters and the retail structure of the FMCG retail industry. The authors discussed the situation in retail trade in the years 2015-2019 and the evolution of disposable income and expenditure on food and soft drinks. A key part of the work takes into account the impact of income factors on consumer purchasing decisions in terms of choosing the place of shopping.

Design/methodology/approach: The study utilises the results of the author's multi-annual quantitative surveys of the retail market based on available industry sources. The statistical data on income and food expenditure developments and the results of available market research were also contributed. Pearson's linear correlation method was used to analyse the relationship between the dynamics of income factors and selected retail parameters, as well.

Findings: As a result of the studies and analyses carried out, it was found that the level of revenue mainly affects the product structure of purchases, but has a limited impact on the place of purchase and, consequently, on the structure of the retail trade. Consumers' decisions are based on several different factors (including non-income ones) and most commercial operators seek to address their offer to the widest possible range of shoppers.

Originality/value: The analyzes show that income factors exert a comprehensive but not directly impact on the situation in retail trade. There is no doubt that the steady long-term increase in consumer income is the basis for the development of commercial enterprises. Despite the steady increase in the level of affluence, the vast majority of Polish consumers still combine quality requirements with restrictions on household budgets. As a consequence, it favours the formation of a multi-format structure in retail trade in Poland, as various stores are able to meet the needs of the majority of Polish consumers.

Keywords: disposable income, expenditures on food, retail trade.

Category of the paper: Research paper.

1. Introduction

The aim of this study is to determine the impact of income factors on the development and structure of retail trade in the FMCG sector in Poland. Due to the volume restrictions of the article, however, the considerations were limited to the regions of Wielkopolskie and Podlaskie voivodeships. Contemporary consumers are increasingly aware and have a comprehensive knowledge of the broadly understood commercial offer on the market. For this reason, it is the purchasing behaviour of consumers that must be taken into account to a large extent in management decisions made by trade managers. This will result in effective development strategies, which in the scale of the overall market shape a specific structure of retail trade of the fast-moving products.

Consumers' purchasing behaviour has a varied background, including: social, psychological, ecological and economic. The key economic factor is the level of disposable income that can be used for consumption, savings and other life purposes. The level of obtained income may shape diversified purchasing attitudes, as consumers display a spectrum of different needs and market behaviour. Moreover, decisions regarding the choice of a retail outlet and the purchase of specific products are determined by a wider set of human needs, which means that the income aspect is most often combined with other factors of influence.

This study covers the development and structure of the retail food trade, within which stores of various formats operated domestically. The retail in Poland is very diverse and competitive, which means that its concentration level is increasing and the inter-format structure is changing (Ciechomski, 2015, p. 108). Due to their development potential, many retail chains exceed the growth rate of the market as a whole. Hence, the development of stronger commercial entities takes place at the expense of economically weaker ones. Consumers who make autonomous purchasing decisions about the place of purchase have a significant impact on the success of these activities.

2. Consumers' income and food expenses

According to the theory of consumption, the most important factor shaping the structure of household expenditure is the level of individual income. The financial resources shape consumers' lifestyles and social attitudes, and therefore the income factor is related to socio-cultural, environmental and psychological conditions. The economic determinants include prices, promotional activities, access to sources of financing, savings and, above all, disposable income (Liczmańska, 2015, p. 108).

This part of the discussion focuses on the different decisions of consumers concerning the choice of where to make purchases. This is manifested in the application of diversified criteria for the selection of retail stores where fast-rotating goods are purchased.

The choice of place of purchase is made by individual consumers based on a set of criteria, which can additionally be variable over time. It manifests itself in the application of various criteria for selecting retail stores, in which purchases of fast-moving goods are made.

The result of this approach is the so-called mixed purchasing model used by a significant part of Polish consumers who visit various grocery stores according to their needs. The increasing access of consumers to knowledge, including m.in. via the internet, has led to the emergence of the phenomenon of smart shopping, which means making well-thought-out purchasing decisions. This attitude leads to obtaining the maximum benefit in terms essential for buyers (Sobczyk, 2013, pp. 118-119). In the retail market, the main manifestation of a smart shopping attitude is the desire for consumers to obtain as low prices as possible concerning the selected brands and specific products sought.

During the period of economic growth in 2015-2019, there was observable significant increase in annual average disposable income per capita. This phenomenon was accompanied by a constant improvement in consumer sentiment, which should have a positive impact on both the volume of purchases and the changing structure of consumption. This is confirmed by the research on consumer behaviour carried out by the end of 2019, which showed that the aspect of product quality was mentioned more often than the price level. The increase in consumer demand is largely the result of improved incomes for the lowest-paid groups. This is confirmed by indicators of poverty, the level of which has decreased significantly during the analysis period. This phenomenon is derived from economic growth, in particular the raising of the minimum wage, the Family 500+ program or the fall in unemployment.

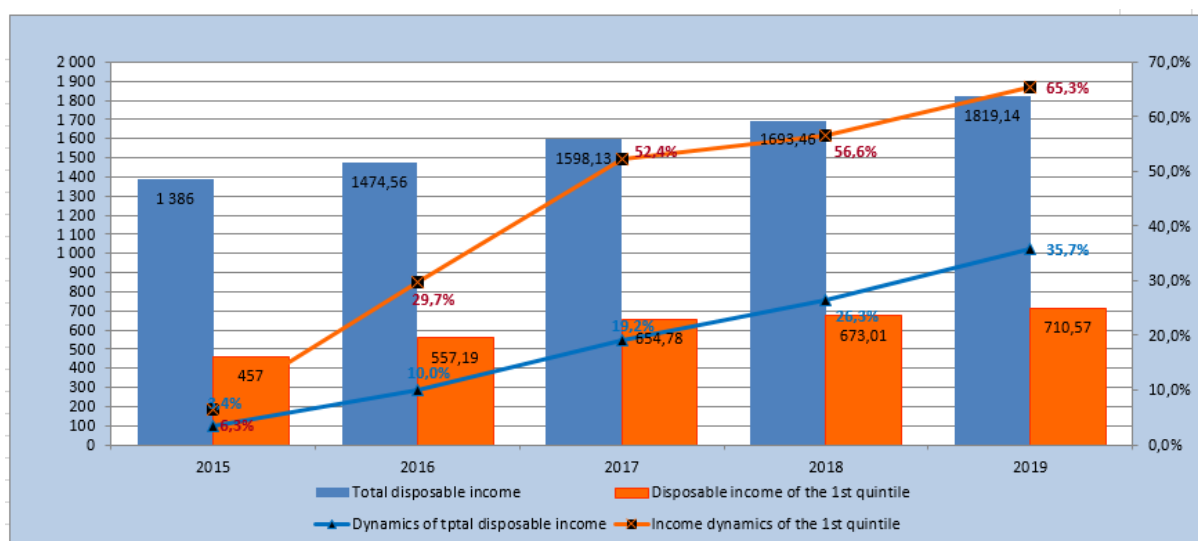


Figure 1. Total disposable income and quintile I in 2015-2019. Source: Own elaboration based on the research results.

The strong increase in income of the group of the least well-off consumers is confirmed by the analysis of consumers belonging to the first quintile, whose disposable income in the analysis period 2015-2019 increased by 55.5%, compared with an increase of the fifth quintile (20% of the most well-off) of almost twice as much (23.6%). Changes in the level of disposable income are illustrated in figure 1, which clearly shows a distinct indicator of the income dynamics of the least affluent people. This resulted in a decrease in the level of income differentiation expressed by the quintile coefficient of 4.9 in 2019, which is significantly lower than the level of 6.2 in 2015.

During the analysis period, there was a noticeable increase in spending on food and soft drinks at an average annual CAGR of 4.6% (Borusiak, 2008). It is easy to see that this increase is, however, significantly lower than the increase in disposable income during this period of 7.0%. This means that the share of food and non-alcoholic beverage expenditure in disposable income is decreasing, from 18.9% in 2015 to a ceiling of 17.3% in 2019. Figure 2 shows the downward trend of this indicator in 2015-2019. It is worth adding that this is a long-term trend that has been going on in Poland since 2005. This process means that consumer income growth is less than previously spent on food and other necessities, or rather spent on higher-order products, durable goods or consumer services, e.g. catering, tourism, entertainment (Gardocka-Jałowiec, 2015, p.198).

The low and ever-decreasing share of food expenditure as incomes increase means that the disparity between extreme groups of consumers is flattened. It follows that expenditure on food and soft drinks by the wealthiest consumers is only 60 pp higher than that of those in the lowest income segment. This difference is therefore incomparably lower than the almost fivefold spread of income of similar groups of consumers.

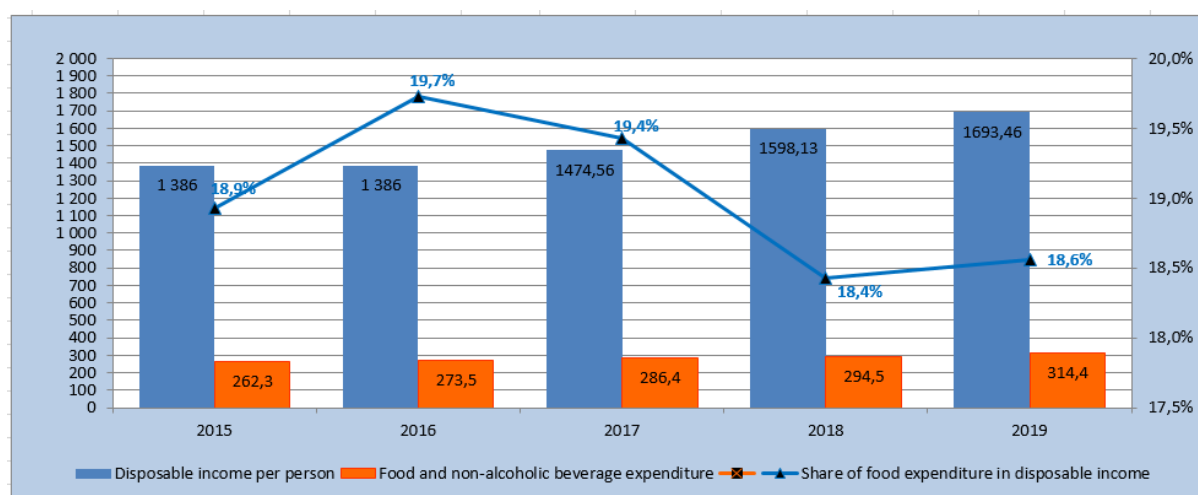


Figure 2. Share of food and non-alcoholic beverage expenditure in disposable income in 2015-2019 (in %). Source: own elaboration based on the research results.

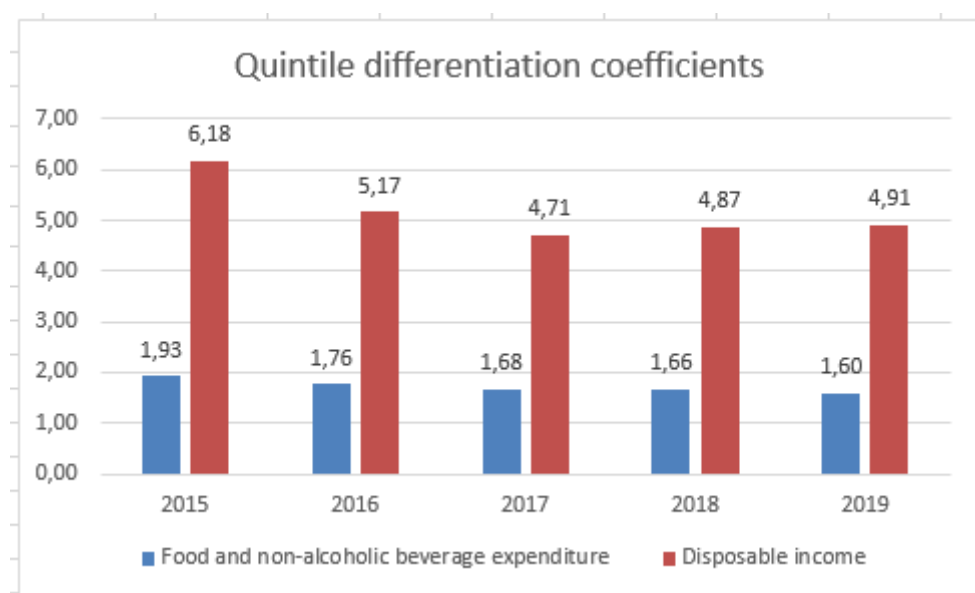


Figure 3. Rates of differentiation of expenditure on food and non-alcoholic beverages and disposable income. Source: own elaboration based on the research results.

Based on the data presented in Figure 3, it can be concluded that consumers with different income groups may display less and less differentiated purchasing behavior.

3. Impact of income factors on the structure of retail trade in the years 2015-2019

The inference on the impact of the level of wealth on the development and structure of the food market was made on the basis of a comparison of the dynamics of phenomena using deduction and synthesis methods, including using Pearson's linear Correlation index. Comparing the dynamics of these phenomena in the years 2015-2019 shows a very high level of compatibility of these phenomena, and only a slightly lower correlation occurs between the dynamics of income and the increase in the total sales area, which showed a slower pace during this period. The reverse correlation between the increase in revenue and the decrease in the number of shops only indicates that the Polish market is undergoing structural changes with positive growth parameters, i.e. more efficient stores replace the weakest retail units (Kondej, 2017a, pp. 124-125). Figure 4 shows the correlation indicators between consumers' disposable incomes and selected parameters for the development of trade in food products.

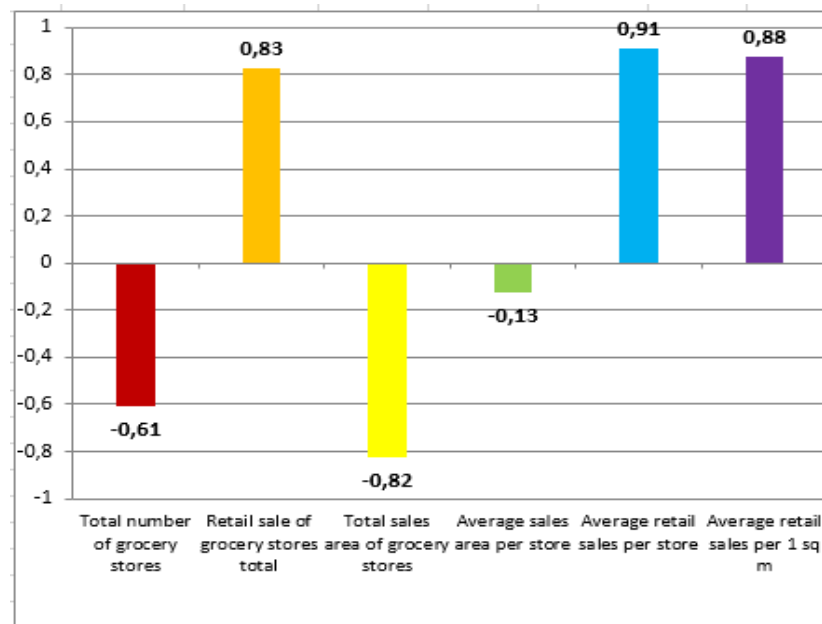


Figure 4. Correlation of disposable income with parameters of development of grocery stores (for the period 2015-2019). Source: own elaboration based on the research results.

A negative correlation index (-0.82) occurs between the growth rate of disposable income and the minimum dynamics of the total sales area. On the other hand, the highest level of correlation (0.91) concerns the average sales per store, which is mainly the result of a significant improvement in the effectiveness of retail trade, measured by the growing level of sales per 1m². Similarly, a high level of correlation appears between the dynamics of food and non-alcoholic beverage expenditure and the growth parameters of food retail stores, which is presented in Figure 5.

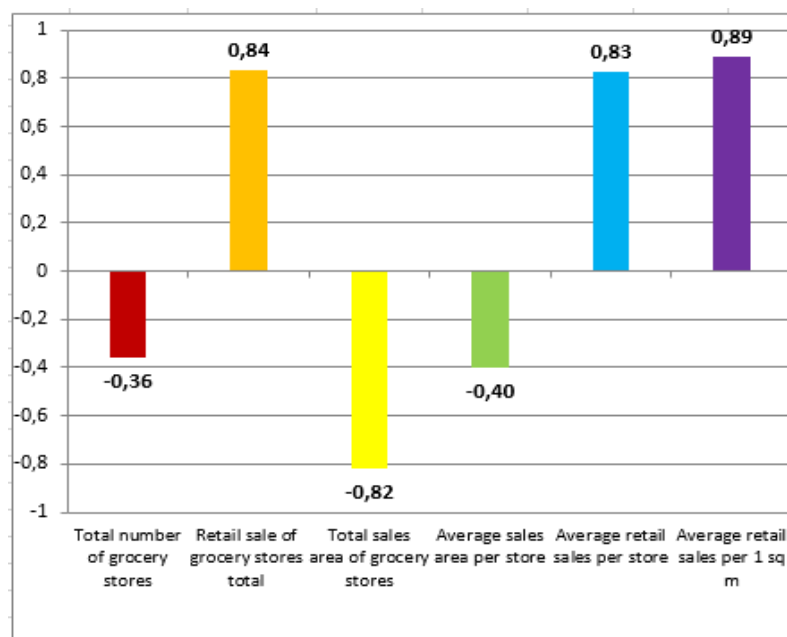


Figure 5. Correlation of food expenditure with the development parameters of grocery stores (for the period 2015-2019). Source: own elaboration based on the research results.

In this context, high correlation indicators relate to the dynamics of expenditure on food and non-alcoholic beverages with retail sales of food trade (0.84), average sales per store (0.83) and average sales per 1 m² (0.89). Negative indicators with regard to the total number of stores, total sales space and average sales space confirm the growth of the food market on the basis of increasing sales efficiency, including better use of available sales space.

It should also be noted that the growth rate of disposable income is much higher than the corresponding retail sales index in the food market. When applying these comparisons, however, it should be remembered that the level of disposable income creates only the potential for the development of retail trade, and the real value of the market is determined by the level of expenditure on basic products. Figure 6 below illustrates three economic categories, namely the dynamics of disposable income, expenditure on food purchases and the level of retail sales of grocery stores.

Due to the rapid increase in incomes of consumers with lower levels of wealth, their spending on food and other products of current consumption has increased rapidly. This has had a significant impact on retail sales, as such consumers spend a relatively large proportion of their income on food and necessities than the more affluent ones (Kuśmierczyk, 2012, p. 61).

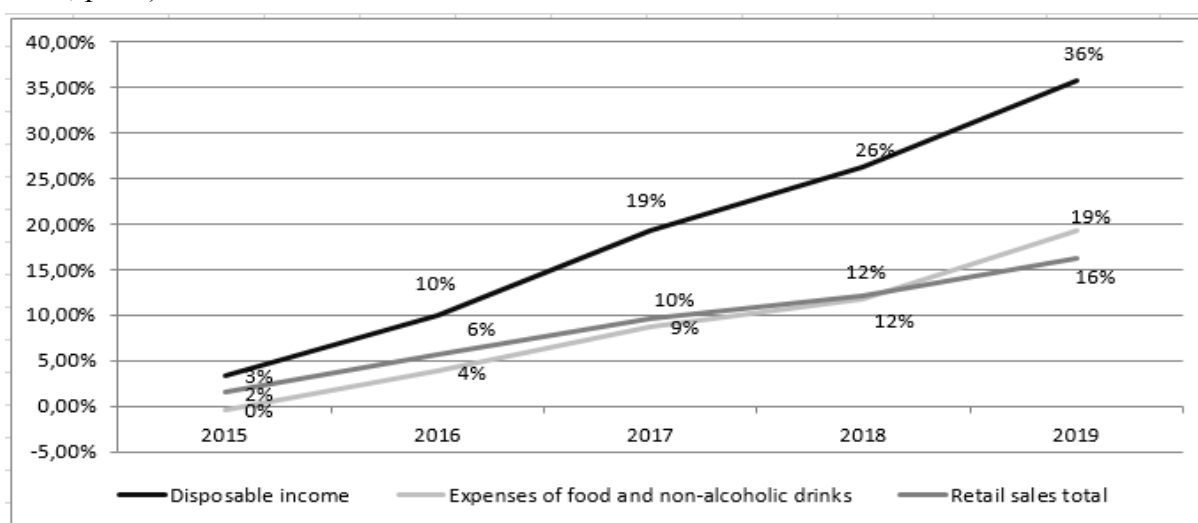


Figure 6. Dynamics of disposable income, food expenditure and retail sales of grocery stores in 2015-2019 (in 2014 prices). Source: own elaboration based on the research results.

The effect of dynamic income growth of less affluent social groups is to reduce the income gap, which is reflected in the declining level of both the Gini coefficient (from 30.6 in 2015 to 28.5 in 2019) and the quintile income ratio, analogously from 6.2 to 4.9. Given the much greater alignment of the quintile coefficient of food expenditure (1.6 in 2019), it can be concluded that, due to the limited differences between consumers of extreme income groups in this respect, their choices regarding the place of purchase of first-time products are similar. Such a statement is all the more justified because, in terms of the average level of disposable income per person, Poland is only in 28th place among European countries, and the level of this indicator is slightly higher than half of the European average.

This means that the dominant part of Polish consumers has to manage their financial resources sparingly, which also applies to the acquisition of necessities (Mirońska, 2010, pp. 122-123). This is manifested in the search for products at attractive prices, promotions and price opportunities and acceptance of private labels as substitutes to more expensive branded products.

The moderate average annual increase in expenditure on necessities (CAGR 4.6%) determines the rate of growth of the value retail market as a whole. The development of retail in the FMCG industry is derived from the market activity of individual retail chains, whose sales dynamics are higher than the growth rate of the whole market. At a higher level of aggregation, this is shaped by dynamic trading formats, in which market expansion exceeds the growth rate of the entire market. Due to demand constraints, the dynamic development of some retail networks (and stores formats) comes at the expense of other less competitive entities and commercial formats.

In the analyzed period 2015-2019, the inter-format structure of the food trade changed noticeably. This was mainly characterized by the strong development of the discounter chains, whose sales growth at that time was on average (CAGR) of 10.6% per annum. The wide and growing interest of customers in such stores is due to the optimal adaptation of the commercial offer to the expectations of customers of different levels of affluence. This includes convenient locations near where potential customers live, relevant in terms of sales space size, convenience and speed of shopping, affordable prices and the appropriate composition of the product assortment (Kucharska, 2016, p. 36). It includes offers at the economic and standard level, own brands and branded products, foodstuffs and selective offer of industrial products. Discount offers also include products tailored to the expectations of more demanding customers, e.g. premium, organic or vegan products (Borusiak, 2008, p. 99).

The overall increase in consumer wealth has also enabled the dynamic development of convenience networks (CAGR 8.1%). These shops are most often located in opportune locations in large and medium-sized cities. The offer of these stores consists of a limited range of necessities, impulse offers and a diverse range of consumer services, including small gastronomy. This format generally addresses its commercial offer mainly to customers from higher income groups, and the price level is among the highest market ceilings. However, due to the low value of the shopping cart, customers in convenience stores are also less well-off customers, including young people leading an active lifestyle.

Supermarket stores reported a moderate 4.1% CAGR increase in sales between 2015 and 2019. It should be emphasized that in this category of retail outlets there are both large-scale shops up to 2500 m² as well as compact retail outlets of 300 m² to 500 m². This distinction is so important that Polish consumers clearly prefer proximity supermarkets, such as Dino, Stokrotka and Carrefour Market. In order to increase competitiveness, supermarket operators have used a number of solutions typical of discounters in their retail establishments, such as reducing the depth of the commodity range, introducing their own brands or executing intensive

price promotions. These measures are aimed at generating the interest of the dominant part of Polish consumers, who combine quality expectations (in terms of products and place of purchase) with the expectation of affordable prices (Kłosiewicz-Górecka, 2013, p. 135). In this diverse format, smaller supermarket chains located in convenient locations, i.e. residential areas or smaller towns, are successful.

The networks in hypermarket format are in the phase of slight yet deepening regression. This phenomenon occurs despite the important advantages of these retail establishments, such as the lowest market prices and the widest product range. The reason for the limited consumer interest in these retail establishments is the desire of a growing number of consumers to convenience and reduce the time spent shopping for first-time products. Despite the relatively low prices, the specificity of shopping in large-scale stores is a larger "shopping basket", which is contrary to the concept of frequent but smaller grocery purchases in convenience stores and housing estate outlets. On the other hand, rising incomes mean that the argument of low affordable prices is considered by consumers together with other aspects of commercial activity, such as convenient location, saving time to shop or satisfactory commercial offer in shops close to where potential customers live (Ciechomski, 2018, pp. 67-68).

Development in dynamic trading formats takes place at the expense of small-format grocery stores. In the years 2015-2019, the decrease in sales of small-format stores was already only an average annual (CAGR) of 0.4%. This is due to the failure to adopt some of these retail establishments to the increasing price and quality requirements of Polish consumers. Polish consumers have European purchasing aspirations with very limited (compared to Western European countries) income opportunities. Already in the first decade of the 21st century, the characteristic attitude of "smart shopping" for Polish consumers was revealed, which at the same time has a profit and aspirational basis (Sobczyk, 2013a, p. 340). This is reflected in the combination of requirements for quality products and shopping comfort with expectations of affordable, as low prices as possible.

Attention should be also paid to the increasing average area of stores in this format and to improving sales performance indicators. This indicates clear adaptive changes, mainly due to the connection of stores in this format to networks operating nationwide. Thanks to this, progress was made in terms of affordability, visualization of these establishments, quality of assortment or promotional activity (Kowalska, 2012, p. 142).

A characteristic feature of retail trade in Poland is intense competition in the framework of the multi-format structure. Operators in all formats have high adaptability to the current requirements of the Polish market. This applies primarily to the consideration of purchasing behaviour and preferences of Polish consumers, who are showing an increasingly equal level in spending on food and other necessities. Consequently, the operators of most retail chains seek to meet the expectations of the dominant part of Polish consumers, who combine high-quality needs of products and outlets with the expectation of affordable prices. The principle of

convergence manifested in these activities makes the shops of different concepts and formats similar on many levels (Kosińska-Gębska, Tul-Krzyszczuk, Gębski, 2011, p. 45).

4. Comparative analysis of the impact of income on trade in the two provinces of Wielkopolskie and Podlaskie

This paper also attempts to analyze the relationship between income factors and the structure of retail trade in the food industry in a spatial system, based on the example of two voivodeships: Wielkopolskie and Podlaskie. In terms of the disposable income, both regions present a similar level, in the case of the Wielkopolskie region by one-, and for the Podlaskie region by 4 percentage points lower than the national average. The demographic and income indicators are presented in Table 1.

Table 1.

Selected demographic and income indicators of the Wielkopolskie and Podlaskie voivodships (2019)

Parameters	Units	Polska	Wielkopolskie	Podlaskie
Population	people	38382576	3498733	1178353
Surface	km ²	312705	29826	20187
Density of population	Persons/1 km ²	123	117	58
Urbanization rate	%	60,5	55,2	60,3
Number of cities	units	954	113	40
Number of cities over 20 000 residents	units	218	20	8
Disposable income per person	PLN/month	1819	1807	1742
Purchasing power/1 km ²	PLN mln/1 year	2,68	2,54	1,22
Total expenses per person	PLN/1 month	1252	1163	1030
Expenditure on food and non-alcoholic drinks per person	PLN/1 month	314	297	320
Share of food and non-alcoholic drink expenses. in disposable income	%	17,3	16,4	18,4
Purchasing potential of food and drinks without alcohol/1 km ²	PLN ml/ 1 year	0,46	0,42	0,22

Source: own elaboration based on: Regiony Polski 2020, GUS, Budżety Gospodarstw domowych w 2019 r. GUS, Polska w liczbach. GUS, Bank danych Lokalnych, GUS, Rynek wewnętrzny 2019, GUS.

Figure 7 presents information on the amount of disposable income and expenditure on food and non-alcoholic beverages in 2019 in both of the above-mentioned voivodeships.

The distribution is different with regard to expenditure on food and soft drinks, which are 2% higher in Podlaskie and 6 percentage points lower than the national average in the Wielkopolskie region. This difference is due to the fact that in Podlaskie the share of food expenditure in disposable income is significantly higher at 18.4% compared to 16.4% in Wielkopolskie (Kuśmierczyk, 2006, p. 77).

The two provinces differ significantly in terms of population and area; hence it is necessary to bring income parameters to the common denominator. On the basis of the population density index and the level of disposable income, purchasing power per unit area (in PLN million per 1 sq. km) was determined. This rate is more than twice as high in the Wielkopolskie region, which is mainly the result of a correspondingly higher level of population density. Similarly, the purchasing potential per unit area for food and soft drinks can be determined, which in the Wielkopolskie region amounted to PLN 0.46 million per year compared to PLN 0.22 million in Podlaskie.

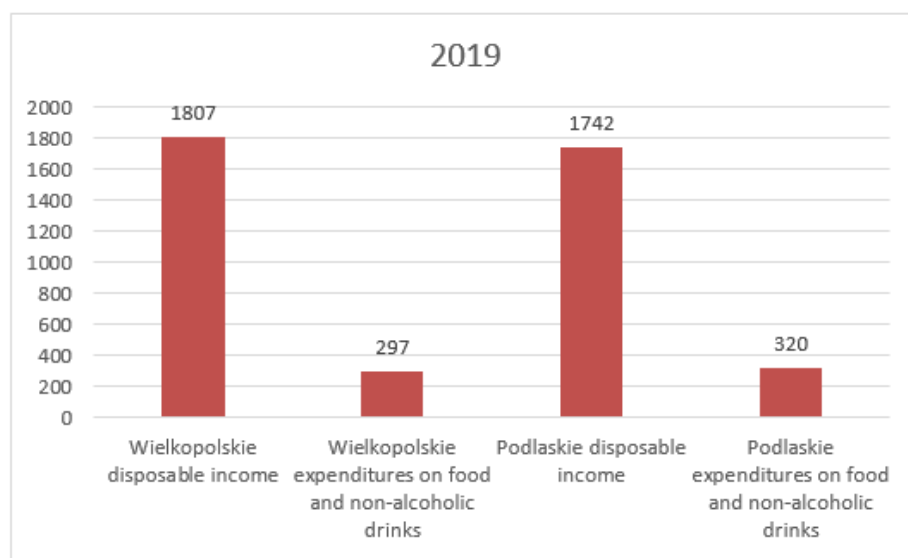


Figure 7. Disposable income and expenditure on food and soft drinks in the Wielkopolskie and Podlaskie voivodships in 2019. Source: own elaboration based on the research results.

The total number of grocery stores in 2019 in Wielkopolskie amounted to 8832, which is more than four times the number of stores in Podlaskie, where 2495 outlets were registered. Such a significant difference is mainly due to the larger area and a much higher population in Wielkopolskie. For the comparison purpose, the number of shops per sq. km was determined, which in the Wielkopolskie region was 0.30 compared with more than twice the density of the location in Podlaskie of just 0.12 store.

For the purpose of comparison, the location density was determined in the form of a parameter showing the number of km² per one store. This indicator in the Wielkopolskie voivodship amounted to 3.6 km², compared to the more than twice as high parameter in Podlaskie, amounting to 8.1 km². Data on grocery stores in Wielkopolskie and Podlaskie voivodships are presented in Table 2.

Much smaller disparities were in terms of comparing the number of shops per 10,000 inhabitants, which in Wielkopolskie was 25.2, being by 12% higher than the national average. By contrast, in the Podlaskie region, this parameter was at the level of 21.2 store, which is by 6% lower than the indicator for the entire domestic market.

Table 2.*Selected retail trade indicators in the Wielkopolskie and Podlaskie voivodships (2019)*

Parameters	Units	Polska	Wielkopolskie	Podlaskie
Total number of stores	Units.	333340	34042	9617
Number of grocery stores	Units.	86482	8832	2495
Number of hypermarkets	Units.	466	47	10
Number of supermarkets	Units.	3506	406	98
Number of convenience stores	Units.	6033	405	132
Number of discounters	Units.	4240	317	111
Number of small-format grocery stores	Units.	72237	7656	2144
Total grocery store location density	km ² /1 outlet	3,6	3,4	8,1
Location density of hypermarkets	km ² /1 outlet	671,0	634,6	2018,7
Location density of supermarkets	km ² /1 outlet	89,2	73,4	207,0
Location density of convenience stores	km ² /1 outlet	51,8	73,6	154,7
Location density of discounters	km ² /1 outlet	73,8	94,1	181,7
Location density of s small-format grocery stores	km ² /1 outlet	4,3	3,9	9,4
Total number of grocery stores vs population	persons/1 outlet	444	396	472
Total number of hypermarkets vs population	persons/1 outlet	82366	74441	117836
Total number of supermarkets vs population	persons/1 outlet	10948	8609	12083
Total number of convenience stores vs population	persons/1 outlet	6362	8629	8914
Total number of discounters vs population	persons/1 outlet	9052	11034	10604
Total number of small-format grocery stores vs population	persons/1 outlet	531	457	550

Source: Own elaboration based on the research results, Bank Danych Lokalnych, Rynek wewnętrzny w 2019 roku, Rocznik Statystyczny Województwa Wielkopolskiego, Raport o sytuacji społeczno-gospodarczej województwa podlaskiego 2020.

Given the slightly higher level of spending on food and soft drinks in the Podlaskie region, it is difficult to justify higher retail rates in the Wielkopolskie region. This means that other factors play an important role in the location of grocery stores. In this case, such a parameter can be the population density, which is twice as high in the Wielkopolskie region (Kondej, 2019b, p. 90). The number of square kilometers per one store is more than two times lower in Wielkopolskie, however, the difference between the two regions in terms of the number of people per store is only 19%. On this basis, it can be concluded that, with a comparable level of income and expenditure on food, low population density is a factor hindering the development of retail chains. This may be related to greater difficulty in reaching more distant retail outlets, which may force consumers in rural areas to make less frequent purchases in advance.

It is also worth looking at the format structure of stores in both provinces. Figure 8 below presents the percentage structure of the share of each format of retail outlets in the sale of necessities.

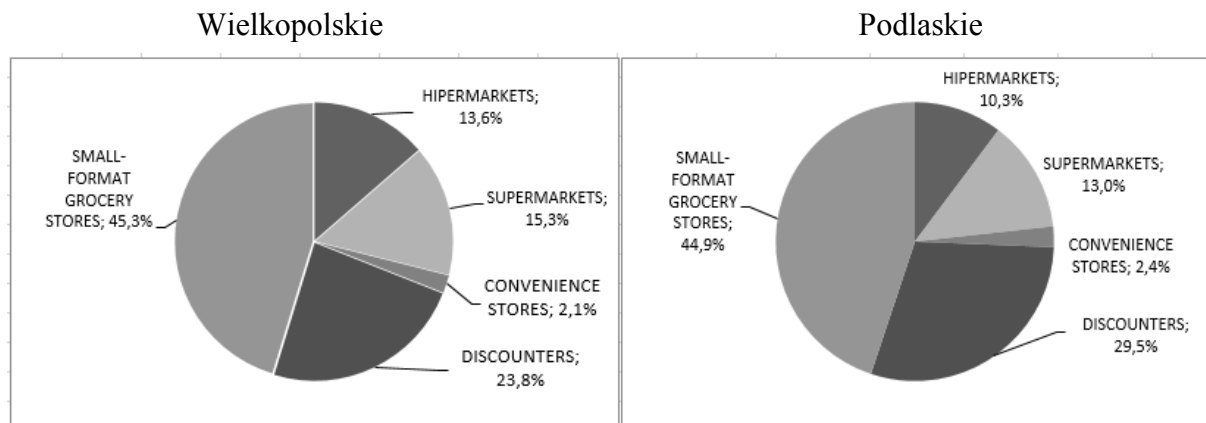


Figure 8. Value sales structure of food market formats in Wielkopolskie and Podlaskie provinces in 2019. Source: Own elaboration based on the research results.

It draws attention to the predominance of the Wielkopolskie region in the participation of chains treated as modern, i.e. hypermarkets and supermarkets. With relatively equal incomes, the causes of this phenomenon may be found in the greater share of large cities in this region, which provides the most convenient locations for stores from these formats. With a similar share of small-format stores and convenience, the advantage of the Podlaskie region amounts to a much larger share of the value structure of discount stores. This concerns the intensive expansion in the region of two discount chains, Biedronka and Lidl (Domański, 2001, pp. 110-111). The favorable factor for these chains is relatively lower competition from supermarkets and hypermarkets and an increasingly pronounced but still persistent price advantage over small-format stores. This is particularly true for independent small grocery stores, which are often unable to compete effectively with expansive discount stores.

In both compared voivodeships, there also exist the determinants not directly related to the demand, which plays a significant role in terms of store locations. These are factors such as the level of economic development of a given region, longer trade traditions, a more central location of many stores and the proximity of logistic warehouses, often located in the central part of the country. An example of a comparative analysis of these voivodeships clearly shows that the broadly understood total income factor has a moderate impact on the development and structure of retail trade. However, there is an impact of income diversification in terms of the size of the town, including the influence on the trade structure of large agglomeration, such as Poznań (Kaczmarek. 2010, p. 146). The comparative analysis confirms that the dominant influence on the location of grocery stores is the population density. Thus, the real demand potential for commercial operators is the combination of income and expenditure on food with population density. For this reason, in the Podlaskie region, which is characterized by the lowest population per unit area in the country, there is a more dispersed structure of retail trade than in the more populated Wielkopolskie Voivodeship.

5. Conclusions

The analyzes show that income factors exert a comprehensive but not directly impact on the situation in retail trade. There is no doubt that the steady long-term increase in consumer income is the basis for the development of commercial enterprises. However, this has a greater impact on the product structure of consumption, and only to a limited extent on the choice of the place of purchase in these categories. The key impact factor is the declining income inequality, which is mainly due to a marked increase in the financial capacity of groups with a lower level of affluence. This affects the levelling of expenses on food and non-alcoholic beverages, as a result of which the influence of the income factor on the choice of the place of purchase becomes limited. Although consumers from different income groups have different quality expectations, they can be realized in many different grocery stores. Despite the steady increase in the level of affluence, the vast majority of Polish consumers still combine quality requirements with restrictions on household budgets. As a consequence, it favours the formation of a multi-format structure in retail trade in Poland, as various stores are able to meet the needs of the majority of Polish consumers.

In this situation, market successes on a national scale can be achieved by retail chains that address their offer to wider social groups and those in which quality and price are best combined, taking into account current consumer trends as well as the current expectations and needs of buyers (Kucharska, 2014, pp. 221-223). The beneficiaries of these transformations are mainly: discount stores, chain medium and large grocery stores, compact proximity supermarkets, and convenience stores (in large and medium cities).

On the other hand, income conditions negatively affect small independent grocery stores, which are not competitive to larger retail chains in terms of assortment, price and convenience of shopping for customers. Consumer trends resulting from the growing financial possibilities of consumers are also not conducive to the functioning of hypermarkets, because a significant part of consumers is driven by factors such as convenient store locations, speed of shopping or attractive promotional campaigns (Ciechomski, 2018, pp. 67-68).

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THE IMPORTANCE OF DIALOGUE AND COOPERATION WITH THE RESIDENTS FOR URBAN DEVELOPMENT, ON THE EXAMPLE OF THE CITY OF RZESZÓW

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Purpose: The article aims to present possible means of residents' participation in a city's development as well as to identify selected areas of such activity, on the example of the city of Rzeszów.

Methodology: The article employs critical analysis of the literature on the subject and the case study method.

Findings: Interaction between a territorial unit and its residents can, in the Author's opinion, be developed and strengthened with the use of the DART model proposed by Prahalad and V. Ramaswama. Based on its assumptions, four basic elements of the model were adapted in the theoretical for the needs of a territorial unit: Dialogue, Access, Transparency, Risk Assessment. Empirical verification, based on the example of Rzeszów, allows a conclusion that various forms of a dialogue with residents, transparency and timeliness of the information transfer, and the city's openness to new forms of contact with its residents fit into the assumptions of the DART model.

Practical implications: In addition to the traditional forms of utilizing the Rzeszów residents' potential, such as public consultations or participatory budgeting, Urban Lab, which has been operating in Rzeszów since 2019, is another important instrument enabling residents' participation in the city's development. Urban Lab is a modern cooperation platform available to everyone who wants to change something and set directions for the city's future development, by sharing ideas, exchanging thoughts and views. Residents can participate in the projects implemented that are addressed to various target groups, listen to experts' opinions, as well as formulate questions and express their own opinions and suggestions publicly.

Originality: Various modes in which Urban Lab can be applied as a form of residents' involvement in a city's development have been presented, which, based on the example of Gdynia and Rzeszów, should be an incentive for other cities to launch this type of initiatives enabling the use of local community's potential.

Keywords: city development, residents, participation, dialogue, cooperation.

Category of the paper: research article, case study.

1. Introduction

Implementation of new public management concepts which attach increasing importance to the empowerment of citizens (Andres-Morawska, and Rudolf, 2015) is conducive to the growth of social participation. This phenomenon has been emphasized, *inter alia*, by B. Jaworska-Dębska, who pointed out that during the 30 years of local government operation, significant development of various forms of social participation took place in Poland. This has been reflected in the decision-making as well as consultative or opinion-making processes (Jaworska-Dębska, 2020).

The development of social participation fits, in particular, with the concept of Public Governance, which is characterized by greater communality in the functioning of public authorities, openness and transparency of public institutions, as well as the network-like model of the decision-making centers' functioning (Szczerski, 2005). In the concept of Public Governance, residents act as stakeholders, partners, who are not just ordinary customers, as in New Public Management, but constitute an element of the society's life, participate in the solving of collective problems, partaking in the creation of a given territory's value (Kuźniar, Kawa, 2018).

At a city level, the participation process is reflected in the local community's increased interest in the development of its territorial unit. This translates into the residents' greater involvement in local matters, the prospects for dialogue and cooperation with the authorities, and, consequently, participation in the decisions and the activities involving urban development. One example may be the residents' co-decision-making regarding the way a specific part of public finances is spent under the so-called participatory budget, which, apart from its basic functions, also helps identify the local community's needs, supports the community's integration around the issues that are important for it (Owsiak, 2016).

Owing to the dialogue and the multi-directional communication, the residents can become a source of valuable ideas and innovative solutions, which reflect the User Driven Innovation concept (Wise, and Hogenhaven, 2008). The innovations co-created by residents are based on the use of their knowledge, creativity, experience or their willingness to cooperate.

The article aims to present possible means of residents' participation in a city's development as well as to identify selected areas of such activity, based on the example of Rzeszów. A thesis had been assumed stating that the city examined, whose motto "Rzeszów – the capital of innovation" has committed it to development of innovative solutions, should in particular manner use the residents' knowledge, creativity and involvement in the local matters, creating favorable conditions for idea and opinion sharing and exchange of suggestions for change.

The article employs critical analysis of the subject-matter literature addressing the topic undertaken. The theoretical considerations have been enriched with information obtained from the Rzeszów City Hall and the specialist reports available. As an example of how the residents'

potential in the city examined can be used, the main concept as well as the most important areas of activity, in relation to the Urban Lab functioning in Rzeszów since 2019, have been presented as well.

2. Dialogue and cooperation between a territorial unit and its residents, in the context of the DART model adaptation

According to the 'Service Dominant Logic' concept, each product's value is created as a result of a co-creation process, in which the consumer plays a priority role (Vargo, and Lusch, 2004). With regard to a territorial unit, participation of stakeholder groups, especially of residents, in the process service provision, interaction occurs between local authorities and the recipients of the territorial offer, which requires not only dialogue and commitment on the part of both sides, but also mutual trust and information sharing.

Explanation and description of the interaction developed between a territorial unit and its stakeholders, which constitutes the basis of social participation, can be facilitated by the so-called DART model. Its authors (Prahalad and Ramaswamy, 2004) indicate that the interaction developed between an organization and a client in the process of value co-creation oblige both parties to respect four basic assumptions: Dialogue, Access, Transparency, Risk Assessment.

1. Dialogue – refers not only to information exchange or knowledge sharing but should mean certain quality of the relations between the territorial unit authorities and the stakeholders. These relations should be characterized by deep commitment, ability to listen, empathy, and interactivity. Dialogue should enable the residents' involvement in the process of value for creation for a territorial unit. One example of such relations or knowledge and idea sharing may be public consultations, direct meetings of local authorities with residents, a dialogue with the local community via internet forums or social networks. They should take into account the specificity of the target groups.
2. Access – assumes the possibility using specific elements of the offer, without having to own them. As such, in order to take advantage of the offer, there is no need for ownership transfer; additionally, the local community can have access to specific services as early as at the stage of their design and project implementation, which allows "experience of the value" during the process of product development. In practice, many examples of access to public services or infrastructure can be indicated. In many cases, the local community can also participate in their design, the initial testing and modification.

3. Transparency – i.e. transparency of the information available to the local community. This is an important aspect, since residents become increasingly involved in the development of their "small homelands", and thus have greater and greater information needs. Therefore, in order to gain the residents' trust in the local authorities, information transparency is essential (asymmetry disappears). In addition to the traditional forms of information flow, including direct messages, the newsletters issued by municipal authorities or information folders, an important information function should also be assigned to the Internet, which allows the residents to constantly follow current events, ask questions (e.g. "chatting" with the mayor), or share their ideas and observations. Social media have a particularly important role to play in this regard.
4. Risk Assessment – refers to the probability of a project's failure, or damage. Owing to the information held and the dialogue opportunities available, local community representatives can reduce the risk by taking over some responsibility for the threats associated with specific investments. The residents' role in risk assessment and reduction is to signal the threats emerging, share knowledge and experience, or propose alternative solutions. As a result, the residents take over some of the responsibility for the failures associated with the local authorities' inappropriate decisions or actions.

Respect for distinct principles creates a new quality in the relations between a territorial unit and its residents, resulting in mutual benefits, in particular:

- combination of access and transparency, which constitutes the basis for the dialogue between local authorities and residents, enabling better decision making,
- dialogue and risk assessment – facilitate joint meetings, debates, consultations (e.g. the "participatory budget" campaign), which favors joint development of specific solutions,
- transparency and risk assessment enable development of mutual trust, which facilitates creation of positive, lasting relations between local authorities and residents (Kuźniar, and Kawa, 2015).

In the process of a territorial unit's value co-creation, the so-called 'groups with high mobility potential' play an important role (Domański, 1997). Usually, it is a small group, but at the same time very creative and dynamic, playing the role of public opinion leaders and a given community's ambassadors. It should be underlined that by involving residents in the creation of the territorial offer, a new quality of the relations between a territorial unit and the main stakeholders is created, which results in mutual benefits. Joint development of specific solutions ultimately leads to the building of trust between the local authorities and the residents. This problem has been emphasized, inter alia, by I. Kowalik (2011), who pointed out that proper formation of the mutual relations between the authorities and the local stakeholders, especially the residents, allows development of strategic competitive advantage, which contributes to the unit's so-called relational capital.

3. Possible means of the Rzeszów residents' participation in the city's development – selected practical examples

The investments implemented in Rzeszów in many cases result from the cooperation between the city authorities and the local community representatives, including residents. The impact the residents have on the city's development has been possible owing to the various forms of participation, the most important of which are participatory budgeting, public consultations, or numerous, direct meetings of the mayor with the local community.

In the last few years, the Rzeszów Participatory Budget has been an instrument allowing the residents to co-decide on partial spending of the city budget. This has enabled the residents to be engaged in the process of city management by co-decision-making regarding the way a strictly defined part of the budget, the value of which has been systematically increasing over the last of 7 years (Table 1), reaching 10 million in 2020. PLN, is spent (Bulletin of Public Information, 2020).

Table 1.

Primary data characterizing participatory budgeting in Rzeszów

Item	Year						
	2014	2015	2016	2017	2018	2019	2020
Amount in million PLN	5.0	6.5	7.5	7.65	7.65	7.65	10.0
Number of voters (in thousands)	34.5	21.7	22.6	36.7	15.1	19.7	25.0
Voter turnout (in %)	23	14	15	23	8	10	17

Source: own elaboration based on the Rzeszów City Hall data.

When analyzing the data in Table 1, it can be noticed that the greatest involvement of the Rzeszów residents in the development of the participatory budget had been recorded in the first year of its operation. In the following years, varied interest was noticeable, whereas the lowest share of residents in the voting was recorded in 2018, when the very low (8%) turnout was explained by poor transfer of information. In subsequent years, owing to the activation of the local community, interest in the participatory budget began to grow again. It is worth noting that each year the share of the votes cast via the Internet was increasing, which allows a prediction that in the upcoming years the turnout will systematically increase, especially among younger residents.

When submitting project proposals, the residents of Rzeszów can choose from three categories of activity (Table 2):

I – construction, modernization or renovation of the city infrastructure.

II – construction, modernization or renovation of housing estate infrastructure.

III – pro-social, cultural, educational or sport-related activity.

Table 2.*Number of projects financed as part of the Rzeszów Participatory Budget*

Item	Year						
	2014	2015	2016	2017	2018	2019	2020
Category I	10*	1	6	4	6	5	5
Category II		5	17	21	18	18	21
Category II		None**	9	9	12	7	21

*in 2014 no category was distinguished.

**in 2015 categories I and II were distinguished.

Source: own elaboration based on the Rzeszów City Hall data.

The projects earmarked for participatory budget financing primarily fall within the categories associated with housing estate infrastructure modernization and general-public activities (especially of a sport-related nature). Based on the results of a research conducted by M. Kowalska-Chrzanowska in 18 voivodship cities, participatory budgeting cannot be considered an effective tool reinforcing active participation of citizens in cultural life (Kowalska-Chrzanowska, 2019). In relation to Rzeszów, this regularity has been only partially confirmed.

The first year of participatory budgeting, particularly the residents' high voter turnout, inspired the city of Rzeszów authorities to launch a social platform (dobrepomysly.erzeszow.pl). It is meant to enable the residents to submit, all year long, ideas and specific solutions aimed at improvement of the quality of all spheres of urban life. It is worth noting that the proposals submitted not only concerned investment activity, but also contained ideas for public and charity campaigns as well as cultural, sporting or entertainment events. What is more, each logged in portal user can comment on the proposals submitted, which allows ongoing verification of the usability and the attractiveness of the ideas propounded. This is important information for the city authorities, affecting the decision-making regarding the projects undertaken. It is based on the principles of crowdsourcing, the overarching idea of which is to 'draw on the wisdom of the society'.

The Rzeszów residents' involvement in the development of the city is favored by an extensive system of marketing communication via various media. Unusual forms of promoting the city's assets and the current problems associated with its development include the messages posted on LCD monitors on public transport buses, which display city advertisement spots, information regarding upcoming events and all kinds of awards received by the local government, or other information pertaining to municipal matters. Similar information can be obtained through free text messages. Residents can also subscribe to the newsletter, in order to receive city news via e-mail. Additionally, social networks (Facebook, YouTube, Instagram, Google+, Pinterest, Twitter), which enable interaction with the residents, play an important information function as well. It should be emphasized that the city of Rzeszów is open to dialogue with various target groups, while its profile moderators are very active, trying to respond to the user comments. The two-way and multi-directional information

flow fosters the growth of trust and highlights the city's openness to new forms of contact with residents, which is in line with the assumptions of the DART model.

The Rzeszów residents' sense of satisfaction with the quality of life in the city and the directions of its development have been confirmed by city's high positions in national and international rankings, including its fifth position in the Quality of Life Ranking (Index, 2018). It is worth underlining that in the "Community" category, reflecting civic involvement, Rzeszów was ranked quite high, i.e. third. This category includes selected aspects of the residents' activity in political and social life, e.g. participation in local government elections or involvement of municipal movements in environmental protection, including the fight against smog. In reassessment, Rzeszów obtained 94.46%, which allows for a high assessment in terms of the direction of the socio-economic changes that have taken place in Rzeszów in recent years.

4. Urban Lab as a form of using the city residents' potential

Urban Lab is a project jointly developed by the Ministry of Investment and Economic Development and the Institute of Urban and Regional Development, entitled "Urban Lab as a pilot tool to improve the quality of the residents' life in accordance with the smart city idea (original in PL: Urban Lab, jako pilotażowe narzędzie poprawy jakości życia mieszkańców miast zgodnie z ideą smart city)". It was introduced in 2019 as a pilot project in two cities: Gdynia and Rzeszów. PLN 3.5 million has been allocated for the project implementation in Rzeszów, PLN 2.6 million of which is EU funding.

The essence of the project entails the city's cooperation with enterprises, scientific entities, non-governmental organizations and the residents. This cooperation, based on a diagnosis of specific stakeholder groups' problems and needs, aims to improve the quality of urban life and functioning. The Urban Lab activity, being a cooperation platform available to all who want to change something and set directions for the city's future development by sharing their ideas and exchanging thoughts and views, results in the implementation of innovative solutions and improvements. Another important objective associated with the project activity is to support potential entrepreneurs, mainly through professional consultancy in relation to startup development.

There are four most important functional areas constituting the pillars of Urban Lab (BIP, Dobre Praktyki, 2020):

1. Institutions searching for partners who would seek solutions to the urban problems diagnosed and possible pilot implementations of the solutions developed for selected problems.

2. Institutions rendering the city's resources (including data sets) accessible to the entrepreneurs, individuals and NGOs striving to develop new methods of using these resources for improvement of the residents' quality of life.
3. Urban Cafes – places of inspiration, forums for exchange of modern urban thought, inviting experts from Poland and abroad, organizing events, seminars, trainings, summer schools, etc.
4. Innovation incubators – institutions offering support in the incubation process of innovative ideas that are focused on solving urban problems (including, e.g., support for technological projects, but also for social innovations addressed to the people who are at the highest risk of social exclusion), searching for financial sources as well as funding the grants aimed at 'first business' development.

In less than a year of the functioning of Urban Lab in Rzeszów, many substantive meetings, conferences and creative discussions took place as part of the activities carried out. Part of the expert group discussions constituted an introduction to city-wide consultations, an example of which can be the newly-developed "Study of the Conditions and Directions for Spatial Development in Rzeszów (original in PL: Studium Uwarunkowań i Kierunków Zagospodarowania Przestrzennego Rzeszowa)". The online broadcasts via the Facebook profile of the Urban Lab Rzeszów allow the residents not only to follow the discussion on an ongoing basis, but also to formulate questions or express their opinions and post suggestions on the forum.

The issues raised within the Urban Lab target various stakeholder groups and address many areas of social life. One example is the "City for people who are lifelong active" (original in PL: Miasto dla aktywnych przez całe życie) project – undertaking the tasks of ensuring optimal living conditions for all residents, with particular emphasis on active aging. This means the strive to ensure the longest possible independence of the city's inhabitants in everyday functioning and to enable active participation of seniors in social and economic life. Improvement of the quality of older people's lives entails, at the same time, acting for the benefit of all social groups and support of the city's development, in accordance with the concept of silver economy.

Many specialist projects, including the "Robot Challenge - mobility in a city of the future" (original in PL: Robot Challenge – mobilność w mieście przyszłości), have also been consulted with experts at the Urban Lab headquarters. As part of the project, the KIDS HACKATHON was organized, during which children were developing solutions that would, from their perspective – i.e. reaching Mars, be most beneficial for the city. The project's main objective was to promote robotics, science and modern technologies as opportunities offering better future for young students. The project targeted primary school youth and their teachers.

Another important element of Urban Lab activity is the thematic conferences, for instance, the "Eco-mobility and alternative forms of transport" (original in PL: Ekomobilność i alternatywne formy transportu) conference, during which three thematic blocks that are

important for the city's perspective were discussed: infrastructure for alternative forms of transport, optimal use of 'clean energy' – energy storage and autonomous buses – as a symptom of public transport development.

The so-called 'business breakfasts', aiming to build a more effective innovation market, have been the flagship of the Urban Lab project. They are attended by representatives of corporations, large companies, startups, as well as the scientific communities and public institutions. One important subject discussed is the proposals of startup solutions, which often are ahead of the initiatives improving the quality of life.

The above-presented examples constitute only a part of the initiatives implemented and the projects coordinated by the Urban Lab. The most important objective, and at the same time a challenge, entails an attempt to implement real changes in the urban space, developed as a result of the cooperation between various groups of stakeholders, as well as to make Rzeszów a modern city capable of supporting various forms of innovation.

5. Conclusions

The residents' activity within the local-government community, has been primarily related to the grassroots initiatives on their part, which is reflected in the local community's participation in territorial unit management. This can be manifested on many dimensions, especially via the opinions and assessments expressed, the suggestions for changes proposed, or the specific activities associated with various initiatives aimed at development of a given unit. The use of the residents' and other stakeholders' potential requires the local authorities to pursue a policy that facilitates co-creation of a given territory's value by, *inter alia*, the strengthening of the relations with residents, based on mutual trust (dialogue) and reliable information transfer regarding the decisions made or the activities undertaken (transparency).

These assumptions should be reflected in the practical functioning of territorial units, especially the cities predisposing to the name of important innovation centers, because the 'drawing on the wisdom of the society' may constitute an important impulse in the implementation of the innovative solutions improving the city's functioning and its residents' quality of life.

Openness to the forms of contact with residents, based on modern technologies enabling multidirectional dialogue in a hypermedia environment, plays an important role when it comes to development of conditions for residents' participation in the life of the city, as exemplified by the Urban Lab concept. This, however, does not diminish the role of traditional direct meetings of the city authorities with residents as part of public consultations. The concept of participatory budgeting is also an important instrument enabling the residents to participate in the city's development in recent years. It should be noted, however, that many critical voices

appear regarding this form of participation, indicating that due to the limited financial resources, such participation is only apparent. According to the Author, the activities undertaken as part of participatory budgeting are of great advantage and favor this form of participation, because it is important to make the residents aware of the fact that they can have influence on the city's development and are, which in turn motivates them to act for their future common benefit.

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SIGNIFICANCE OF EMPLOYEE INNOVATION FOR KNOWLEDGE ECONOMY BASED ON THE CASE OF INDUSTRIAL COMPANIES LOCATED IN WEST POMERANIA

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Purpose: The subject matter of the article results from the growing importance of innovation both in the development of enterprises and the entire economy.

Design/methodology/approach: This paper is based on research conducted in 104 small and medium-sized industrial companies operating in the West Pomeranian province. For purposes of the research, the author applied the documentary research method and CATI survey.

Findings: The findings clearly indicate that efforts taken to create environments conducive to employee innovation in industrial companies in the West Pomerania are not sufficient. The surveyed business environments did not adequately encourage employees to, in particular, expand knowledge, seek novel solutions and did not provide them with access to innovation generating tools. It is the company's innovation culture and environment that fuels growth and fosters innovation which allows to compete successfully on national and international markets. The paper also brings to light the low level of innovation of Polish economy resulting from the fact that only ca. 17% of the small enterprises and ca. 37% of the medium-sized enterprises can be considered innovative.

Research limitations/implications: As part of the article, research was carried out in the West Pomeranian Voivodeship. It is planned to conduct research throughout Poland.

Originality/value: The article highlights the need for a comprehensive approach to the innovation generation system in enterprises.

Keywords: innovation, development, knowledge.

Category of the paper: research paper.

1. Introduction

Present day global markets proliferate with consumer goods and services. Highly competitive markets satisfy an infinite variety of consumer needs and wants. Therefore, for companies to be able to operate and thrive in the dynamic, ever changing market, they need to have the capability to gather and process an increasing body of knowledge and generate novel ideas. Successful companies are the ones that approach consumers in an exceptional way, foster original ideas and are able to exceed their customers' expectations. It can thus be said that today we operate in the conditions of a knowledge-based economy requiring companies to base their production and services on knowledge-intensive activities.

Knowledge significantly enhances the overall value of an organization which is the overriding goal of each company. Increased company value comes from, inter alia, a higher number of happy clients, better goods, constantly improving services rendered by competent employees, and the company's positive image and good reputation. Each of these elements can be achieved through focus on broadly-understood employee enhancement and knowledge-based innovative change. A well-structured employee enhancement program gives enterprises a chance to provide up-to-date products, gain a bigger share of the market, and ultimately, enhance the overall company value.

In the 21st century, employee knowledge and capability to create innovation should be the primary focus of organizations. Equipped with adequate knowledge, an organization is capable of taking rational, less risky decisions. Creation of new technologies, solutions or production methods allows to gain competitive advantage and offer highly sellable products which, naturally, translates into better economic outcomes.

It is therefore necessary that organizations implement programs that stimulate employee development and create an environment that encourages, supports and rewards employee innovation.

The aim of this paper is to assess how much focus is put on creating an environment conducive to employee innovation by owners of small and medium sized enterprises operating in West Pomerania, and to identify organizational settings that are appropriate to ensure efficient innovation.

The research focuses not only on the need to create employee innovation programs, but also on some simple improvements that support innovation culture in organizations. It is often the case that such minor enhancements and adds-on are a starting point for initiatives that drive innovation.

To meet the objective, the following research methods were applied: the documentary method and CATI (Computer Assisted Telephone Interviewing) survey that reached out to 104 small and medium-sized manufacturing companies operating in the West Pomeranian

province. The survey was conducted in late 2019 and early 2020. The survey respondents were company owners, CEOs and production managers.

This paper is part of the research program *Monitoring of the socio-economic situation as support for regional development* carried out by the Faculty of Economics of the West Pomeranian Technological University of Szczecin.

2. Organization development and knowledge economy

In today's highly fiercely competitive market, the quality of human resources is the foundation of every organization. It also seems that entrepreneurs and organization founders are increasingly more aware of the fact that employees are the most valuable and strategic resource worth investing in. In other words, they understand that employees – as key drivers of organizational performance – must be treasured and provided with opportunities for professional and personal development.

This view is reaffirmed by S. Kwiatkowski (2002, p. 46) who writes that *today, intangible assets are as significant as traditional tangible assets [...], among them the crucial one being knowledge*. According to A. Toffler (1990, pp. 11-19), human capital is the most perfect factor of production as it is renewable and replicable, and in addition, it gradually substitutes other traditional resources.

In such economic setting, as D. Makulska (2012, p. 177) asserts, knowledge is created, acquired, transferred and used more efficiently by businesses, public administration, non-governmental organizations and people in general. In the context of the so-called new economy, knowledge can be understood as a product and a factor of growth. It is very often a subject of market turnover and it is an economic good. Knowledge is also the information needed to take informed decisions.

As L. Zienkowski (2003, pp. 15-16) points out, the concept of knowledge-based economy is linked to the theory of endogenous growth. The theory holds that certain factors of production are the result of e.g. accumulation of knowledge and intellectual capital. Technological and organizational progress depends on the country's socio-economic policy and changes in the society's mindset. Knowledge is treated as the endogenous force that is the growth engine, shaping the structure of production and driving economic and social progress. The theory perpetuates that knowledge as capital and asset is becoming an essential determinant of the pace and level of economic growth, along with other tangible assets.

In turn, G. Węgrzyn emphasizes that (2013, p. 209) innovation changes the way people do their work and shifts the focus of their professional activity to generating, processing and distributing of knowledge and information with the use of modern digital tools. In developed

economies knowledge as a factor of innovation is gaining importance, and in turn, innovation changes the labour market.

Developed countries are often referred to as knowledge-based economies (KBE). They base their economies on applying human know-how in all production processes. In the new economic reality, the increase in value added will be the result of intellectual, and not manufacturing, work, hence, as researchers claim: *it is the effective development of a nation's intellectual capital that will determine the country's future prosperity* (Dryden, Vos, 2000, p. 294).

In the era of knowledge economy, enterprises should aim towards becoming intelligent organizations that appreciate knowledge and use it for the sake of their own growth. Intelligent organizations readily invest into expanding their IT infrastructure, software and knowledge management systems (Łobejko, 2009, pp. 3-4). Furthermore, they develop the ability to adapt to the market and rapidly respond to the changing needs of consumers.

As M. Dolińska points out, an innovative enterprise should have the following characteristics (Dolińska, 2010, pp. 25-28):

- capability to create and implement innovation within the organization;
- ability to sell goods, in particular, new goods;
- ability to build and efficiently use the organization's innovation potential based on its core competencies;
- ability to acquire, accumulate, apply and expand knowledge;
- openness towards new concepts, ideas, inventions, scientific and technical solutions;
- employ workers who are creative and think out of the box;
- support for continuous development of employee competencies and implement employee incentive schemes;
- fostering innovation culture among employees;
- seeking collaboration with other organizations, academic and R&D institutions;
- collaboration with members of local communities;
- effective knowledge management and readiness to learn from partners/clients that pursue innovation;
- maintaining relationships with clients in order to learn about their expectations and respond accordingly;
- use of new technology, including IT technology;
- fostering multiperspective thinking and openness to change;
- ability to adapt flexibly to changing market conditions;
- readiness to take risks involved in implementing innovation and to take responsibility for outcomes.

Such approach emphasizes the need to build modern, innovative and flexible organizations that are able to adapt to the ever-changing market and generate new solutions and products in cooperation with R&D institutes, harnessing the potential of science and knowledge.

Intelligent organizations should employ highly qualified, highly motivated and creative staff who have full access to up-to-date information and communication technologies, and are well equipped to cooperate with academic and R&D institutes. The latter element will be explored in the further part of this paper.

3. Building environment conducive to organization's growth

Development of the world, including emergence of so many disciplines, invention of innumerable tools, in other words, the world as we know it today has been built by people who were courageous enough to pursue new solutions, to trot the unknown path. To do that, they had to have vast knowledge.

Knowledge is a tool used not only by scientists, teachers, managers, accountants or IT specialists, but by a growing number of working people. Drucker (1999, pp. 63-64) termed these high-level workers the "knowledge workers". Their advantage is that they have unique skills and qualifications, and theoretical and practical knowledge they acquired from, i.a., universities, postgraduate studies, specialist trainings, workshops, former work places and also as a sum total of life experiences.

Polish economy is rather short on innovation. In the report *European Innovation Scoreboards 2019* which provides a comparative assessment of innovation performance across the EU, the 2018 Summary Innovation Index (SII) for Poland is 0,295 compared to the EU average of 0,525. It places Poland in the group of „modest innovators” that close the ranking of the EU countries, exactly on the 4th position from the bottom, followed only by Romania, Bulgaria and Croatia (Figure 1).

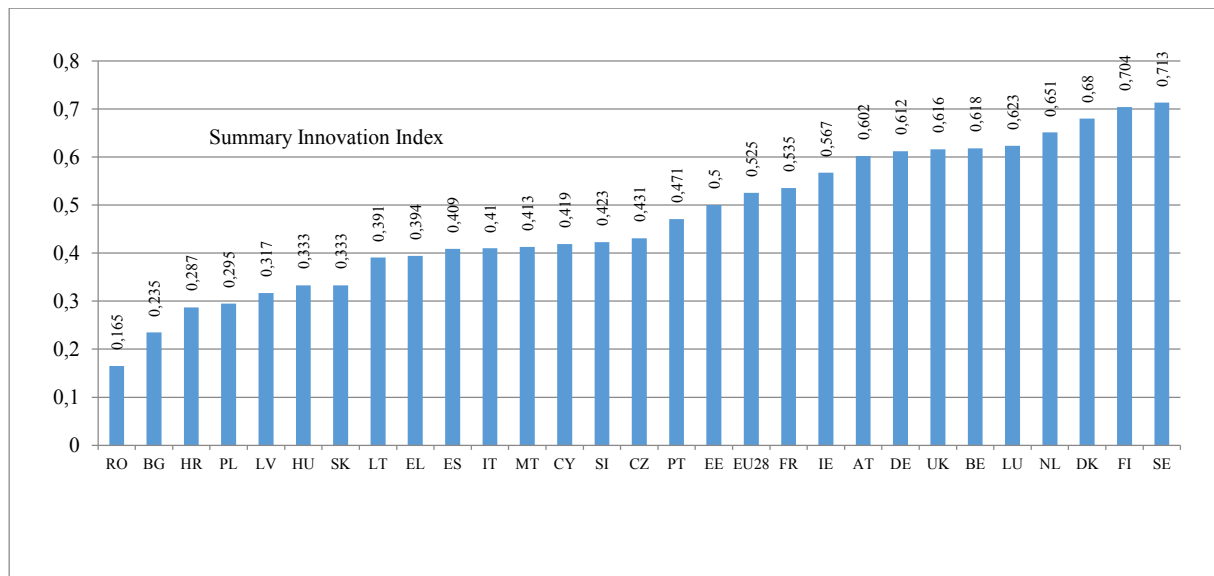


Figure 1. Summary Innovation Index 2018. Source: Own study based on the European Innovation Scoreboards 2019, European Commission, Luxembourg 2019, p. 91.

In the 2016-2018 period, the share of innovative enterprises in the industrial companies sector was 24% (Innovative activity..., p. 38). According to the Polish Central Statistical Office (GUS) among Polish innovative enterprises 17% are small and 37,2% medium-sized enterprises (Figure 2). It is large companies that score the highest on innovation performance with 62,3% of them venturing into innovative projects.

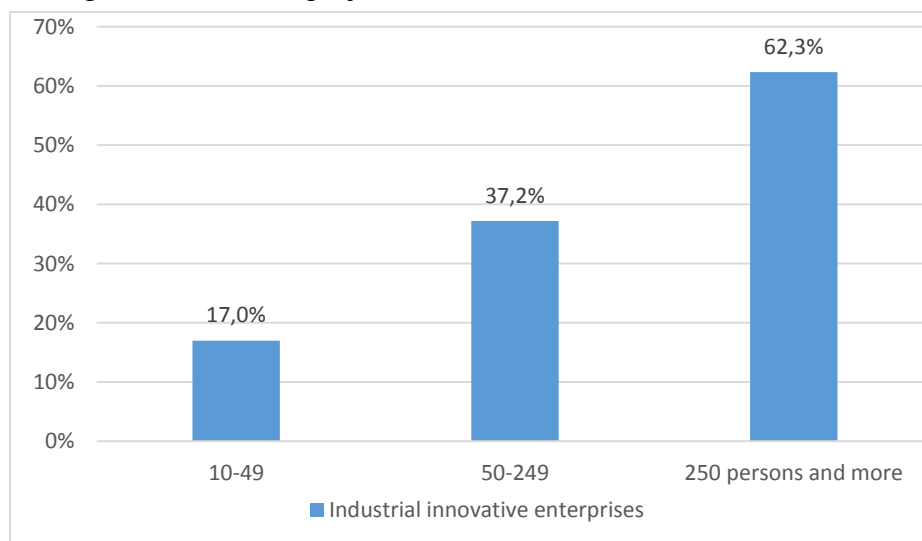


Figure 2. Innovative industrial enterprises in the 2016-2018 period by number of employed persons. Source: Innovative activity of enterprises in the years 2016–2018, GUS, Warsaw-Szczecin, 2019, p. 34.

In the context of a fiercely competitive market, enterprises are able to operate long term and thrive only if they keep developing, which mostly entails the following changes (Pierścioneek, 1996, p. 11);

- implementation of new elements,
- improvement of the existing elements,
- transformation of system structures.

Implementation of the above changes equates with activating innovation. In other words, implementation of solutions that streamline business processes is a prerequisite for ensuring continuous development. Many entrepreneurs realize the growing need for novel solutions in all industries, and yet innovation performance of Polish companies has seen no significant improvement in recent years. Naturally, shortage of innovation translates into low competitiveness of the Polish economy which after Poland's accession to the EU has to face much tougher market requirements. In this context, employee enhancement and development comes across as particularly important (Armstrong, 2010, p. 208).

Inspiring, innovative ideas and solutions can be drawn from various sources. From this point of view we can distinguish the following types of innovation:

- egzoinnovation – innovation implemented within the organization based on concepts that originated outside of it, e.g. purchase of high-tech equipment or license,
- endoinnovation – innovation implemented in result of inventions that originated within the organization, e.g. employee innovation. While implementing egzoinnovation is often costly, endoinnovation that is usually a much cheaper option, and also better adjusted to the organization itself and easier to implement.

A novel, cutting-edge idea for a device or process (invention) originating within the organization and implemented there would be termed an endogenic innovation. And so, endoinnovation embraces all kinds of innovation inspired by employees (management, staff) and implemented in the organization. In the process of generating knowledge, employees should be provided with access to all kinds of resources which could fuel the creation of new solutions. For example, innovators can be inspired by an „idea bank” which gathers insights, tips, experiences and suggestions of employees from across the company structure and the stakeholders.

The main sources of generating new ideas for enterprises are:

1. First of all, the organization's clients who often articulate what should be changed, and in which direction should a product or enterprise evolve. Such insights are also provided by e.g. suppliers or consulting firms. Their input is invaluable as they often clearly see the deficiencies in company operations and perspectives for product development. These suggestions should also be recorded in the aforementioned „idea bank” to inspire employees in their efforts to improve the product or streamline work organization.
2. Information on novel projects implemented within the organization and in external organizations – so that employees engaged in solving a particular problem have insight into what actions were taken by others and what results they yielded. Such feedback allows to save labour and accelerate the development of a new device or process.
3. Access to patent descriptions which explain the invention, design or plant, and which provide a great insight into the state of current technology and give an opportunity to apply a solution which is not protected by patents anymore. Patent information is

a specialized field of scientific, technological and economic information. It encompasses information on all intangible industrial goods awaiting patent protection (e.g. inventions, industrial designs, utility models), and information about patent documents and ownership rights. Such information is accessible through the official websites of, e.g., the Polish Patent Office or the European Patent Office.

4. Access to professional literature and journals – to keep up with the latest trends and solutions implemented worldwide. Such access can be provided by in-house libraries.
5. Results of collaboration with academic and R&D institutes (such as the Polish Academy of Sciences, universities, various R&D institutes). The collaboration should be pursued on a regular basis, and its results available to potential innovators.
6. Benchmarking – a process of measuring the performance of company's products, services or processes against the best companies in the industry, also foreign companies and companies operating on different markets. Based on that conclusions should be drawn and one's organization transformed accordingly.

Another group of determinants of innovation is related to creating a more enabling environment for innovation by strengthening technology in the company. Potential inventors need to be provided with access to various hardware and software to be able to pursue their goal: compute, design, test, enhance. It is important that they can test the solutions they came up with and envisioned, especially that they are often very complex. Therefore, growth-oriented companies, especially large ones, should provide adequate technological facilities, e.g. labs, model making rooms, tool rooms etc. equipped in high-tech machines and devices.

The final group of innovation determinants has to do with employee motivation. An environment conducive to innovation and creativity is not sufficient to create innovation. Employees need to be truly motivated as motivation is the main force through which they are ready to allocate effort to generate and try out innovative ideas. Hence, they need additional incentives or impulses – “motivators”, including: coercive, incentive and persuasion measures (Sekuła, 2008, p. 176).

It must be emphasized that the use of coercive measures such as subduing employee initiatives or imposing interests or priorities on them are not the best way to motivate anyone. Motivation measures must not be coercion measures as the latter are based on reprisals and fear, without leaving any room for employee expectations and best interests. In a way such role is played by: rules of procedure, organizational regulations, instructions, restrictions, employment agreements and other rules in place that tell employees what they should and should not do.

Incentive and persuasion measures are not only more suitable as motivational tools encouraging innovation, but also more effective.

Incentives can come in the form of reinforcement, systemic or temporary stimulation. They are usually part of long-term motivation strategy and are most commonly used in the motivation process. They stimulate employee interest and engagement through monetary and non-monetary rewards. Incentives also give a certain degree of freedom to employees (Jasiński,

2001, pp. 18-19). Incentives are a form of appreciation towards inventors in form of e.g. remuneration, bonuses, other rewards, privileges, and therefore, it is particularly important to apply them in innovation-driven organizations.

Persuasion as a motivational approach is also suitable for boosting innovation. Persuasion attempts to influence a person's mindset and triggers a change in behavior, habits and emotions. It is based on the assumption of equality or partnership in the superior – subordinate relations. Persuasion appeals to an individual's intrinsic motivation and can be either emotional, or rational in kind. Most commonly it is expressed in form of a request, urge, persuasion, propaganda, consult or suggestion (Jasiński, 2001, pp. 18-19).

As the above considerations imply, the issue of stimulating innovation must be approached from many angles. Entrepreneurs should pay attention to the many factors that affect innovation development to be able to effectively use the innovation potential of their employees.

In organizations where development is tied to the input of employees, the “knowledge workers”, endoinnovation is generated – innovation is activated in result of inventions that originated within the organization, e.g. the aforementioned employee innovation.

In contrast, when an organization purchases cutting edge equipment or licenses, they use egzoinnovation – innovation built on novel ideas coming from outside the organization.

Implementation of egzoinnovation usually requires relatively high investment costs, whereas endoinnovation is built on the resources – ideas and solutions – generated by employees, and is a more cost-effective option.

Examples of the world's most innovative companies show that it is worth motivating employees regardless of the position they hold in the company. For example, employees of Toyota generate about 2 million ideas a year (35 per person), of which as much as 85% is implemented in the manufacturing processes (Zajączkowski, 2005, p. 61). Undoubtedly, it's one of the key success drivers of the company.

4. Work environment and employee development in industrial companies in West Pomerania

For the purposes of this paper, in late 2019 and early 2020 a survey was conducted among 104 small and medium-sized industrial companies in the West Pomeranian province.

As per data gathered by the Polish Central Statistical Office GUS (Innovative activity, 2019, p. 37), in West Pomerania in the years 2016-2018 the percentage of innovative companies to total industrial companies was 23,8% (Figure 3), which is an all Poland average.

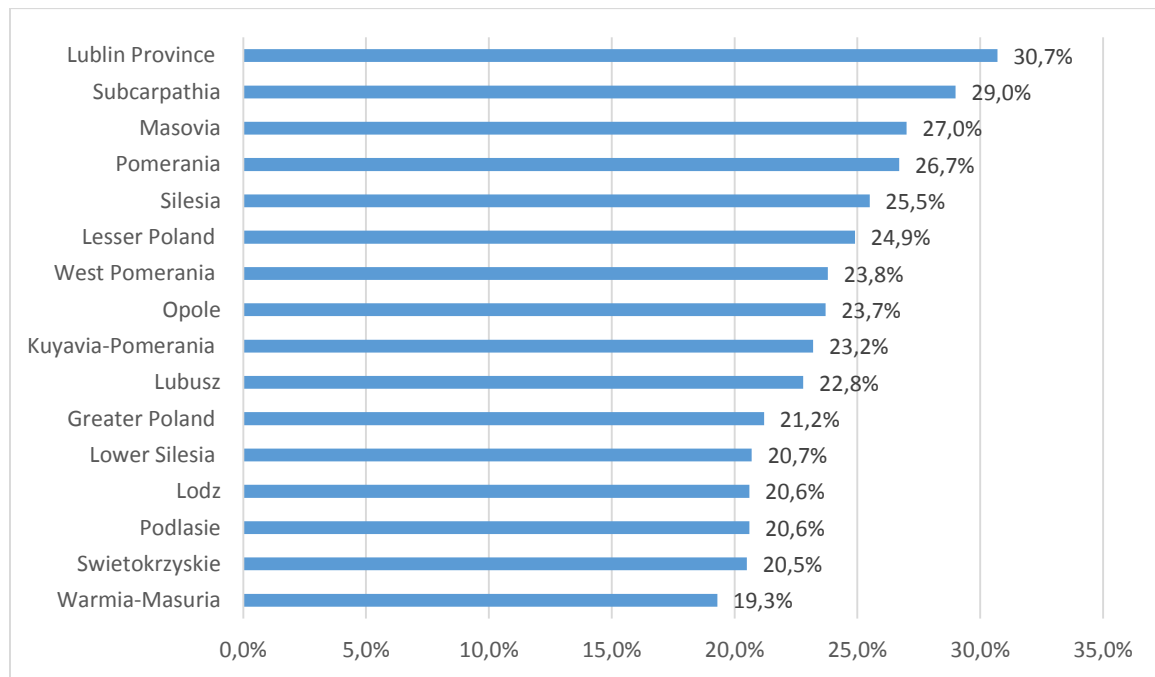


Figure 3. Innovative industrial enterprises in the 2016-2018 period by provinces. Source: Innovative activity of enterprises in the years 2016–2018, GUS, Warsaw-Szczecin, 2019, p. 37.

The survey's first question referred to the creation of novel solutions by employees. 56,7% of respondents asserted that no new solutions are created in their companies, whereas 43.3% claimed the opposite.

In the first case, respondents attributed the lack of innovation in their organizations to the lack of knowledge and novel ideas among employees (47,5%), lack of motivation (37,3%) and finally, lack of appropriate technological facilities (15,2%).

In the second case, most respondents (57,8%) asserted that innovation created in their organizations is no more than "minor enhancements" or "adds-on"; 26,7% of respondents termed the innovation as "not very advanced solutions" and 15,5% declared that "advanced innovation" is created in their workplace.

Although the creation of „minor enhancements" is not equivalent to creating innovation, it plays a very important role in the building of innovation culture and engaging workforce in innovative activities.

The next question probed into whether employers and managers implement any kind of in-company employee development programs and activities. 19,2% respondents claimed that none such activities are taken in their companies (Figure 4), and 37,5% declared that they are relatively rare. In contrast, 43,3% respondents answered affirmatively saying that employee development activities are carried out relatively frequently in their organizations.

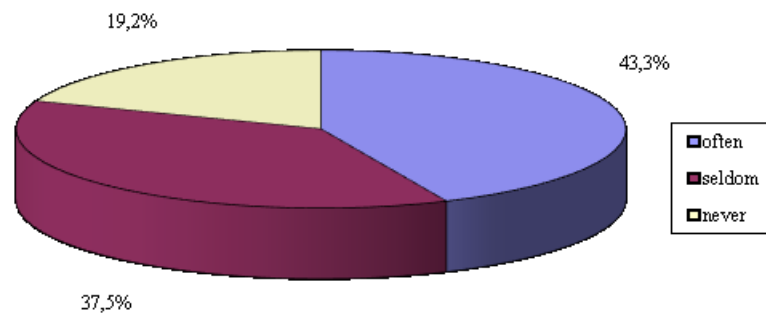


Figure 4. Spread of responses to the question whether employers and managers implement employee development programs in the organization. Source: own study.

The next question referred to motivating employees to raise their qualifications on their own. In this case 51% respondents declared that such motivational activities were taken up relatively often in their organizations, 31,7% stated that it was seldom the case and 17,3% respondents claimed that they were never motivated to raise their skills and qualifications (Figure 5).

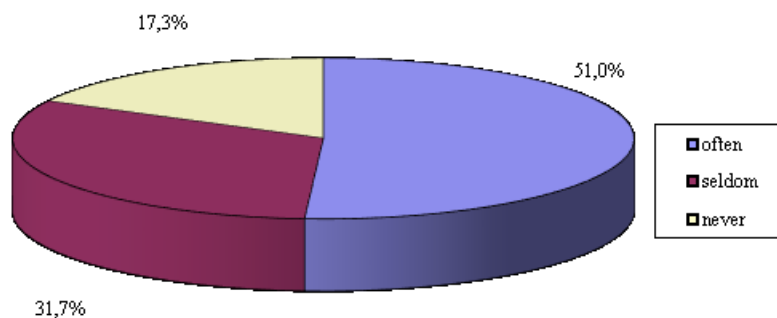


Figure 5. Spread of responses to the question whether employers and managers support employee qualification development outside the company. Source: own study.

Yet another question probed into whether employees are provided with access to professional literature and updated technological developments in their sector of industry, which would enable them to upgrade their skills and enhance their professional development (Table 1).

Table 1.

Responses to the question regarding access to professional literature and updates on industry innovation

No	Do you have access to industry knowledge in form of professional literature and industry updates in your organization?	Responses
1	Yes, I have access to updated and comprehensive knowledge.	25
2	Yes, the knowledge is updated, but access is rather difficult.	17
3	Yes, but the knowledge is not up to date.	9
4	There is no access to current industry knowledge, although it would be very beneficial.	31
5	There is no access to current industry knowledge and there is no need for that.	22
Total		104

Source: own study.

More than half of the respondents (51%) stated that they have no access to current industry knowledge (responses 4 and 5), and 21,2% saw no need for access to such knowledge. Almost every fourth respondent (24%) asserted that access to current industry knowledge is provided in the organization (Figure 6). In turn, only 16,3% respondents affirmed that the knowledge available is up to date, but access is not easy, whereas 8% respondents claimed the opposite, i.e. that they have access to industry literature and information but it is out of date.

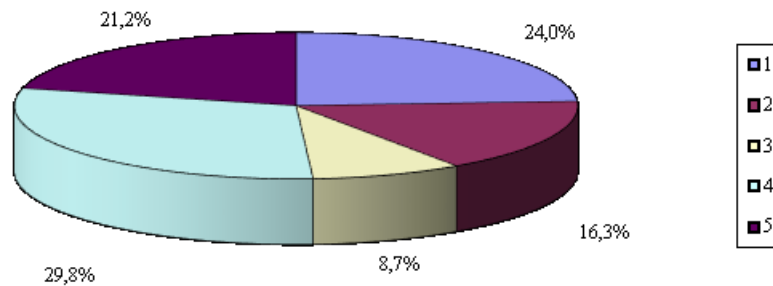


Figure 6. Spread of responses to the question whether access to up-to-date industry knowledge is provided in the organization. Source: own study.

The next question referred to the readiness of CEOs, company owners and managers to fund employee development courses outside the company. In this case, 32,7% respondents claimed that their organizations don't allocate any funds to employee development, 48,1% said that such cases are relatively rare and only 19,2% asserted that their employers are willing to finance their professional training in outside courses (Figure 7).

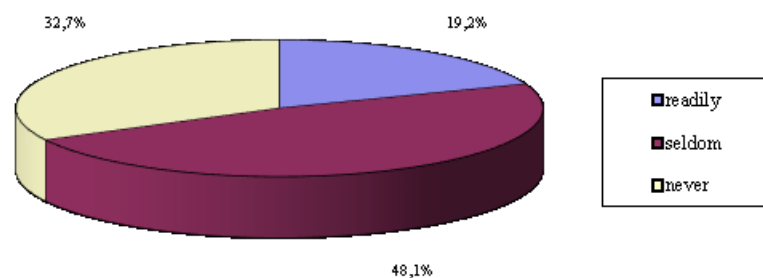


Figure 7. Spread of responses to the question regarding entrepreneurs' readiness to fund out-company employee development. Source: own study.

The findings indicate that no sufficient efforts are taken to create innovation-inspiring environments in industrial companies operating in the West Pomeranian province. Therefore, it seems that the surveyed organizations should remember that it is essential to engage employees in innovative activities, provide them with opportunities to upgrade knowledge and use creativity enhancing, innovation generating tools. The desired result, in the end, is that employees are motivated to push the boundaries of the known and seek innovation – the engine of business success.

5. Conclusions

Research findings confirm that a relatively big number of CEOs and managers (including employers) do not see value in the professional development of their employees. Definitely too few employee development and enhancement programs are realized within organizations, and on the other hand, employees are not motivated to enhance their qualifications outside the organization.

The research also explored others aspects of innovation, such as minor enhancements and adds-on made by employees. Although these are not elements that significantly affect the overall innovation potential of organizations, they are important in terms of promoting innovation culture and boosting employee engagement.

The survey was conducted among management staff only. Undoubtedly, it would be worth to find out the employees' opinion on how conducive the company environment is to innovation. This only proves the need to continue research on organization's innovation potential of the small and medium-sized companies in particular as they generate almost half of Poland's GDP and employ ca. 6,7 mln people (Report..., 2019, pp. 6, 27).

Employee-driven innovation gives companies a good chance to achieve competitive advantage. However, to make it possible, employees need to operate in an environment conducive to professional development, creativity and innovation. Innovative activities also enhance the quality of goods and services, enables diversification, increases organization's market adaptability and gives an opportunity to expand into new markets.

As aforementioned, organizations should have in place a system that: first, supports employees in upgrading their knowledge on a continuous basis, second, provides them with technological facilities needed to develop and test novel ideas, and third, motivates employees to enhance their skills and be creative.

In organizations which create such an environment and where innovation is integrated within the activities of an organization, the likelihood of growth and success is much bigger. This path starts, naturally, from small improvements and adds-on, but leads to innovation that gives competitive advantage.

Furthermore, it is crucial to undertake innovative activities across the entire organization, involving employees of all levels. It has been observed that in organizations cultivating a culture of growth and pro-innovation, employees become increasingly involved in innovative activities.

Innovative enterprises – ones that make innovation a continuous practice – are more likely to achieve competitive advantage and succeed in international markets. Moreover, their good market position and company image attract talent and valuable human capital that in turn fuels the collective ambition to innovate and maximize value in the organization.

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THE SIGNIFICANCE OF EUROPEAN UNION FUNDS FOR THE DEVELOPMENT OF THE REGIONS OF EASTERN POLAND

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Purpose: The aim of the article is to evaluate the significance of European Union funds for the development of the regions of Eastern Poland, by focusing on the benefits of obtaining this type of financial support

Design/methodology/approach: When collecting empirical material for the article, the method of economic and general statistics was used. The time range of the research covers the years 2004-2018. The rationale for the location of the research is the peripheral location of Eastern Poland voivodeships and the related problems of low growth and economic development, low population density, and low income of local governments and residents. Moreover, this part of Poland benefits from a special European Union Program that financially supports the development of the researched regions.

Findings: The research has showed that all voivodships of Eastern Poland narrowed their distance to the national average as it was there that the influence of the cohesion policy on the pace of development was the strongest.

Originality/value: The article presents the use of European Union funds, supporting the cohesion policy implemented by local governments in Eastern Poland and the effects of support based on selected indicators, including the absorption rate developed by the present author.

Keywords: EU funds, cohesion policy, regional development, Eastern Poland.

Category of the paper: Research paper.

1. Introduction

Poland's accession to the structures of the European Union made it possible to use European funds, which, in practice, allows an increase in economic and social cohesion in the European Union. Thanks to the requirement of taking into account the priorities of the European Union in the field of cohesion policy by regional and local communities that utilise European funds, it may be expected that at the regional and local level, goals related to global problems,

including low-emission economy, preventing climate change, reducing poverty, etc., will be achieved (Czudec et al., 2018; Holden et al., 2017; Lugo-Morin, 2016). The use of EU funds has given many regions ample investment opportunities that significantly boost economic growth. Skilful use of these funds allows the region to release its economic potential, which is a source of sustainable development. The use of funds is a challenge for both the units responsible for implementing the programs and their recipients. The attitudes and knowledge of these entities constitute the potential necessary to achieve success in the development of a given region (Katoła, 2012; Miś, 2008).

One of the priorities of the European Union's cohesion policy is such support for development that should lead to reducing the differences in the level of development and living standards in the regions of the EU. The effect of this policy is to increase the competitiveness of regional and local economy. The territorial approach in the process of improving cohesion, understood as geographical space, has been increasingly emphasized (Lambrechts et al., 2008; Miś, and Zając, 2020).

Accession to the EU entails the obligation to conduct regional policy, but at the same time complicates the management of economic policy. The new regional policy is not only redistribution, but also allocation, which enables weak regions to increase their competitiveness and growth potential and to promote sustainable development by maintaining a high level of initiatives on a micro scale, e.g. supporting the development of small and medium-sized enterprises, as well as on a macro scale (stabilization processes, coordination of public policies and decentralization) (Pietrzyk, 2005).

Financial capital from EU funds allows regions, characterized by certain inconveniences and development deficiencies in the economy, to match the standards imposed by the European Union (Oręziak, 2006). Acquisition and proper allocation of European Union funds is of fundamental importance in improving the competitiveness of peripheral regions that are lagging behind in development, i.e. such as Eastern Poland (Sieradzka, 2012). In this context, it may be justified to undertake research on the evaluation of the use of EU funds in the regions of Eastern Poland.

2. Methods

The empirical material used in the research concerns five voivodships of Eastern Poland, i.e. Lubelskie, Podkarpackie, Podlaskie, Świętokrzyskie and Warmińsko-Mazurskie. The figures are derived from the Ministry of Investment and Economic Development and Statistics Poland (GUS) in Warsaw. The time scope of the research covers the years 2004-2018 and concerns mainly indicators used to assess the level of socio-economic development. Data on European Union funds obtained by local governments in Eastern Poland as part of the

implementation of the cohesion policy concern the years 2007-2018 (programming periods 2007-2013 and 2014-2020). The collected and structured empirical material was developed in tabular and graphical form, by using the descriptive and comparative analysis methods.

The study of the use of European Union funds by local governments in Eastern Poland is justified by the fact that, apart from their biggest impact on socio-economic changes at the regional and local level, they are a significant beneficiary of these funds since in the years 2007-2013, about 25% of the total amount of European funds in Poland went to local government units, and in the years 2014-2020 their participation will increase in this respect to 40% (Hamryszczak, 2016).

In the case of assessing the use of EU funds by local governments of Eastern Poland within the implementation of the cohesion policy, the following indicators were used:

- GDP per capita to assess the level of regional development (this is the basic indicator taken into account by the European Commission when assessing the socio-economic situation of the region and the possible need for funding);
- the amount of European Union funds per capita (in PLN);
- percentage of contracts signed under ROP (Regional Operational Program) 2014-2020;
- percentage of use of individual operational programs;
- absorption rate.

The substantive part of the article presents the results of research illustrating changes in the Gross Domestic Product per capita in Eastern Poland starting from the year of Poland's accession to the European Union, as well as the scale of use of European Union funds supporting the cohesion policy by local governments in Eastern Poland. Attention was also paid to the Regional Operational Program, which was presented graphically to highlight the regions of Eastern Poland against the background of other regions in the country. Then the results of research on the absorption rate and the benefits of using European Union funds by local governments in Eastern Poland are presented.

3. Results

Eastern Poland is a region with poorer economic development, consisting mainly of rural areas with a high share of agriculture in the structure of the economy. In the regions of Eastern Poland, rural areas cover 94,758 km², which constitutes 32.5% of the total rural areas in Poland. These are regions located in the border area, adjacent to Belarus, Lithuania, Russia, Slovakia and Ukraine. They are characterized by a low quality of human capital, a low level of infrastructure development, limited territorial accessibility and a low level of income of the population and local government units. Therefore, these are voivodships that meet the definition criteria used for peripheral areas (Grosse, 2007; Rosner, 2008; Grzebyk et al., 2013; Balińska,

2015). Regions of Eastern Poland, however, are characterized by a large environmental and ecological potential, favorable natural and landscape conditions, which is conducive to multifunctional development. In the future, the border location of the Eastern Poland region should be used as an opportunity to establish economic contacts and create cooperation networks, which is a highly preferable phenomenon in the EU's structural policy for 2014-2020. It was also important in programming 2007-2013, which is why in 2007 a special program of the European Union for Eastern Poland was launched (Operational Program: Development of Eastern Poland), which is also continued now as the Operational Program Eastern Poland. It should be added that the voivodships of Eastern Poland also utilize financial resources under other programs supporting the cohesion policy of the European Union. Investments implemented in a given region open up the prospect of positive changes and increasing the region's potential. A skillful use of European Union funds for investments might allow the region to release its economic potential, which is a source of further development. Co-financing from European Union funds allows regions that are characterized by development difficulties to match the standards that exist in developed regions. When implementing projects to improve infrastructure, local authorities treat them as the most important and the most valuable for the broadly understood development. Among the European Union programs that improved the quality of life of the inhabitants of Eastern Poland in 2007-2013, the following ones should be mentioned: Operational Program: Development of Eastern Poland, Regional Operational Programs, Innovative Economy Operational Program, Infrastructure and Environment Operational Program and Human Capital Operational Program and in the years 2014-2020: Eastern Poland Operational Program, Regional Operational Programs, Smart Growth Operational Program, Infrastructure and Environment Operational Program, Knowledge Education Development Operational Program and Digital Poland Operational Program. These programs take into account the improvement of the quality of life through investments in modern technical and social infrastructure as well as in human and social capital.

One of the most important criteria adopted for the classification of particular voivodeships in Poland in terms of the level of development and the related possibility of obtaining funds from the European Union under the cohesion policy is Gross Domestic Product per capita. Table 1 shows the changes in the Gross Domestic Product per capita in Eastern Poland in 2004-2018, i.e. from the year of Poland's accession to the European Union. The importance of Eastern Poland in generating the Gross Domestic Product (GDP) is lower, as it did not exceed the total GDP of Poland in any of the voivodships. However, it should be noted that Poland's accession to the European Union had a significant impact on improving the situation in the country in terms of this indicator. In each of the voivodships of Eastern Poland, the value of the Gross Domestic Product per capita has increased more than twice over fourteen years, which is an extremely positive phenomenon. It should be added that there are some differences in terms of the value of this indicator between individual voivodeships, with the highest being in the Świętokrzyskie Voivodeship and the lowest in the Lubelskie Voivodeship (Table 1). As mentioned above, in none of the voivodships of Eastern Poland, the value of this indicator

exceeded the average value for the country, which confirms that all voivodships of Eastern Poland should receive co-financing from the European Union funds under the cohesion policy.

Table 1.

Gross Domestic Product per capita in Poland in Eastern Poland as compared to the rest of the country in the years 2004-2018.

Specification	Gross Domestic Product per capita (in PLN)		
	2004	2018	Dynamics, year 2004 = 100
Poland	24438	55066	225,3
Eastern Poland, including the following voivodeships:	18202	38543	211,8
Lubelskie	17302	37100	214,4
Podkarpackie	17756	38872	218,9
Podlaskie	18019	39160	217,3
Świętokrzyskie	19445	39742	204,4
Warmińsko-Mazurskie	18490	37843	204,7

Source: own elaboration on the basis of the data from Statistics Poland in Warsaw.

For Eastern Poland, the cohesion policy is a unique opportunity for development, because its priorities in the new financial perspective 2014-2020 are: smart growth, sustainable development and development which favors social inclusion. The data in Table 2 shows that the local governments of Eastern Poland obtained slightly more funds per capita under the implementation of the European Union's cohesion policy compared to the entire country, which this applies both to the years 2007-2013 and 2014-2018. In the programming period 2007-2013, the highest amount of support per capita was granted to self-governments of the Warmińsko-Mazurskie and Podkarpackie voivodeships, and the lowest to self-governments of the Lubelskie and Świętokrzyskie voivodeships. In turn, in the years 2014-2018, the most funds per capita were obtained by local governments of the Warmińsko-Mazurskie Voivodeship. Hence, in the entire analyzed period, i.e. in the years 2007-2018, clearly the most funds per capita under the implementation of the European Union cohesion policy were obtained by the local governments of the Warmińsko-Mazurskie voivodship, and the least by the self-governments of the Świętokrzyskie and Lubelskie voivodships (Table 2).

Table 2.

European Union funds per capita obtained by local governments in Eastern Poland within the implementation of coherence policy in the years 2007-2018

Specification	The amount of EU funds per capita (in PLN)		
	2007-2013	2014-2018	Total
Poland	13883	9934	23817
Eastern Poland, including the following voivodeships:	14375	9795	24170
Lubelskie	12201	9465	21666
Podkarpackie	16202	8788	24990
Podlaskie	14686	9176	23862
Świętokrzyskie	12424	9095	21519
Warmińsko-Mazurskie	16361	12453	28814

Source: own elaboration on the basis of the data from the Ministry of Investment and Economic Development.

Table 3 shows the percentage of the use of operational programs in Eastern Poland in 2014-2018. It shows that the most funds were obtained under the Regional Operational Program (ROP). The exception is the Warmińsko-Mazurskie voivodship, where the most funds were obtained under the Infrastructure and Environment Operational Program – even more than the average in Poland. In the case of the Operational Program Eastern Poland, Podlaskie voivodship obtained the most funds. According to the data of the Ministry of Investment and Economic Development, the largest amount of EU money for 2014-2020 has been allocated to transport projects, including road projects – 64%, then to projects in the field of environmental protection, to actions supporting employment and promotion of employee mobility, and to research and development projects (approximately 10% of the contracted EU funds, respectively).

Table 3

European funds obtained by local governments in Eastern Poland within the implementation of coherence policy as compared to the rest of the country in the years 2014-2018, divided into operational programs

Specification	The amount of obtained funds (PLN million)	Operational Programs (w %)					
		OP Infrastructure and Environment	OP Smart Growth	OP Knowledge Education Development	OP Eastern Poland	OP Digital Poland	ROP Regional Operational Program
Poland	381750,8	44,6	11,4	4,0	2,4	3,0	33,7
Eastern Poland, including the following voivodeships:	15823,6	29,0	10,6	2,4	12,3	2,8	42,3
Lubelskie	20215,6	27,5	10,3	2,4	9,1	5,5	44,7
Podkarpackie	18689,6	24,1	15,7	2,7	9,1	2,3	45,0
Podlaskie	10897,2	21,7	10,3	2,2	21,6	1,5	42,0
Świętokrzyskie	11410,1	27,0	9,2	3,1	11,5	3,1	46,0
Warmińsko-Mazurskie	17905,5	44,9	7,5	1,5	10,1	1,4	34,6

Source: own elaboration on the basis of the data from the Ministry of Investment and Economic Development (as of the end of December 2018).

Due to the fact that the voivodships of Eastern Poland financed their investments from ROPs to the largest extent (more than on a national scale), Map 1 shows the percentage of contracts signed not only in Eastern Poland but in all regions in the country. Most projects under the ROP were implemented in the Pomorskie Voivodeship. The Opolskie, Wielkopolskie and Mazowieckie voivodships also perform very well: the value of EU funds in the signed contracts reaches 74-78% there. The fewest ROP projects were implemented in Zachodniopomorskie and Kujawsko-Pomorskie. In the regions of Eastern Poland, most contracts were signed in Lubelskie and Podkarpackie. The areas of co-financing under the ROP (where the expenditure ranges from 30 to 32% of the available allocation) are as follows: employment, support for SME development, education and development of transport infrastructure. The indicator presented in figure 1 is very important because it shows the activity of voivodship self-

governments in obtaining funding, which until now was at a low level. Moreover, projects implemented under all 16 regional programs have a value of 131.6 billion PLN, including 90.1 billion PLN from the EU. The largest pool of EU money (76 billion PLN, i.e. 32% of the value of signed contracts) was obtained to support sustainable transport. Significant amounts were also involved in the implementation of investments promoting the transition to a low-carbon economy (32 billion PLN, i.e. 13% of the value of contracts signed), as well as in strengthening the area of the research and development and the development of innovation (22 billion PLN, i.e. 9% of the value of contracts).

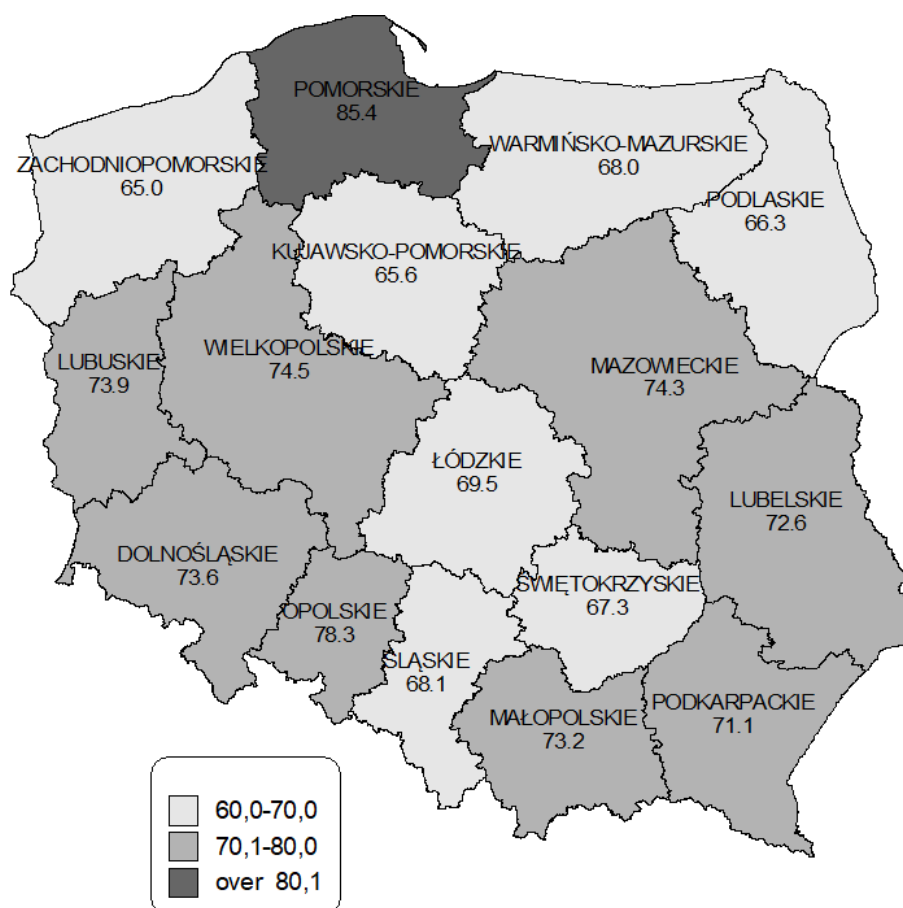


Figure 1. The level of utilisation of funds within ROP 2014-2020, signed contracts (in %). Source: own elaboration on the basis of the data from the Ministry of Investment and Economic Development

The implementation of the European Union development policy, including the regional policy, is subject to systematic evolution towards more and more effective and efficient models, taking into account the advancement of pro-efficiency solutions based on the paradigm of *sustainable development*, as the most comprehensive approach to development. A similar evolution proceeds also with respect to indicators, models for the analysis and evaluation of the effectiveness of public programs and policies, which gain new dimensions, contexts and methods of evaluating the regional development policy (Malik, 2011).

The article proposes an indirect measure of the value added generated by EU funds, which is the absorption rate. This indicator shows the actual share of individual regions of Eastern Poland in the absorption of financial resources in the amount of support in relation to the total

resources of the entire region (5 voivodeships in total). They indicate the involvement of local governments in obtaining funds for the implementation of activities related to the improvement of the quality of life of residents, i.e. initiatives undertaken to mobilize endogenous human and natural resources, infrastructure, social, environmental, cultural investments, etc. The values of the indicator should be higher than 1. The highest level of absorption of EU funds occurred in the Warmińsko-Mazurskie voivodship. It should be pointed out here that in this voivodship also the lowest value of GDP per capita and the highest amounts of co-financing per capita were found. It is a positive phenomenon and proves that the authorities of this voivodship influence the improvement of the quality of life of the inhabitants by undertaking initiatives in the field of investments financed under the cohesion policy. A high level of absorption of EU funds is also observed in the Podkarpackie and Podlaskie voivodships (figure 2). Values below 1 mean that the absorption of funds for the improvement of the socio-economic situation is lower than it results from the region's potential. The self-government authorities of the Lubelskie and Świętokrzyskie voivodships must intensify their activity in applying for co-financing of projects from EU funds.

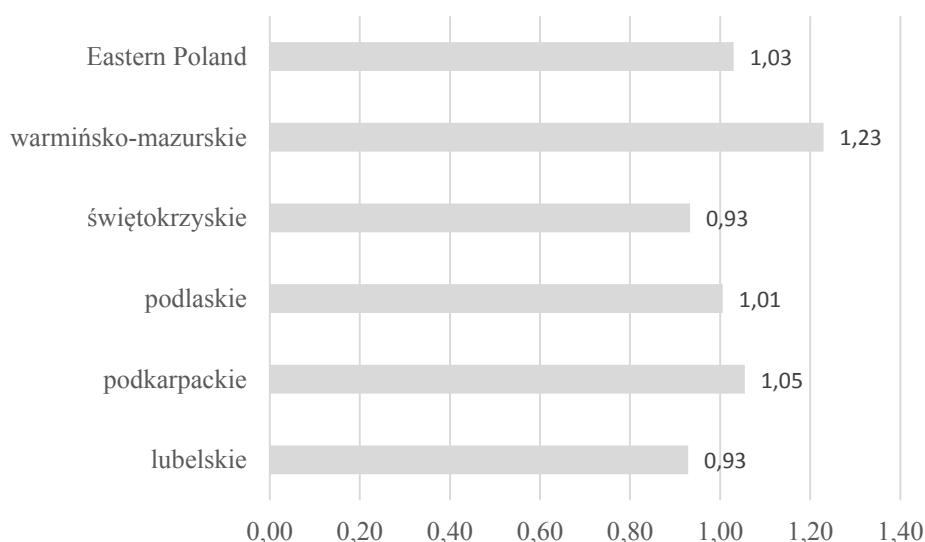


Figure 2. The absorption rate in the regions of Eastern Poland. Source: own calculation.

Investments in the improvement of territorial accessibility, such as construction and modernization of the road, rail and air network, had the largest share in the use of cohesion policy money in Eastern Poland. A significant pool of EU funds was also earmarked for investments in social infrastructure and the development of human capital. Investments which support entrepreneurship, innovation and research and development, as well as environmental projects, including activities in the field of wastewater treatment, air quality improvement, waste management, nature protection or counteracting natural hazards, were ranked next (Biuletyn Informacyjny, 2019).

4. Discussion

New key elements of the reform of the European Union's cohesion policy indicate the need to improve the quality of life by supporting local and regional development, paying particular attention to the role of entrepreneurship and smart specialization (McCann, and Ortega-Argilés, 2016). It was indicated that all voivodeships of Eastern Poland, under smart specializations, should improve the quality of life of the inhabitants by allocating EU funds for activities related to the improvement and development of infrastructure, innovative solutions in every field, including agriculture and rural areas. From the perspective of cohesion policy, these initiatives seem to be of utmost importance.

Thanks to the involvement of European Union funds, the authorities carry out activities aimed at improving infrastructure, and mainly at the expansion of roads, water and sewage networks, or the dynamization of public facilities for the local community through the development of sport, culture and recreation (Sieradzka, 2012). Each country belonging to the structures of the European Union receives invaluable support for its own national economy. This aid concerns areas that absorb money capital and ensures socio-economic growth, technological transformations, modernization and restructuring. Financial capital from EU funds allows regions characterized by certain inconveniences and development deficiencies in the economy to match the standards imposed by the European Union (Oręziak, 2006). The allocation of funds is carried out by confronting the current situation of a given area with the assumptions set out in the regional development strategy, thanks to which it is possible to precisely define the direction of expenditure of the funds. The above mentioned areas also include the voivodeships of Eastern Poland, which can benefit from a rational use of funds in local infrastructure, primarily in the construction of communication connections (roads, railways), housing infrastructure and the required sanitary connections. Aid funds are also intended for investments in public utility buildings, such as: community centers, recreation and entertainment centers, parking lots, tourist routes, bicycle paths and playgrounds, as well as sports facilities and cultural centers.

When implementing projects to improve infrastructure, local authorities treat them as having primary significance and utmost importance for broadly understood development. It should be mentioned that the use of funds for the development of technical infrastructural aspects is 'hard' investments of EU financing, and those related to with the socio-cultural aspect are 'soft' investments (Katoła, 2012). In conclusion, it should be stated that the cohesion policy does not guarantee the reduction of disproportions, but stimulates changes for the effective use of endogenous resources and improvement of the quality of life. EU funds are intended to improve indicators used to assess the socio-economic level of regional development.

5. Summary

Poland's accession to the European Union made it possible to use funds under the implementation of the cohesion policy. This, in turn, contributed to, among other things, an increase in the Gross Domestic Product per capita. The research showed that in all voivodeships of Eastern Poland the value of the Gross Domestic Product per capita more than doubled in 2004-2018, i.e. from the year of Poland's accession to the European Union, which seems to be a very positive phenomenon. However, in none of the voivodships of Eastern Poland the value of this indicator exceeded the average value for the country, which means that all these voivodships should still obtain funds from the European Union under the cohesion policy. Hence, in the years 2007-2018 self-governments of Eastern Poland obtained slightly more funds in this area per 1 inhabitant compared to the entire country, with the highest funds obtained by self-governments of the Warmińsko-Mazurskie voivodship, with the lowest GDP per capita in the scale of the entire country (except for the Lubelskie voivodship). This seems to be confirmed by the analysis of the absorption rate, which has the best values for Warmia and Mazury. This points to the fact that all voivodeships of Eastern Poland narrowed the distance to the national average and it was there that the influence of the Cohesion Policy on the pace of development was the strongest.

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SOME SELECTED FACTORS OF SUCCESS OF ENTERPRISES. THEORY AND PRACTICE

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Purpose: The aim of the present article is to show the possibility of using some selected methods of strategic analysis in diagnosing the developmental processes of the enterprise.

Design/methodology/approach: The method of case study was used here to describe the road to success of some selected enterprises: Nike, a Polish company – Inglot and a Swiss enterprise Breitling.

Practical implications: Internationalisation is becoming part of strategy of a growing number of firms which have to put an enormous effort in its success.

Findings: The conclusion is that success is an extremely complex process. It is not possible to determine a concrete list of factors which will help us certainly achieve it, but the examination of the factors and their analysis will make it possible to observe certain regularities which will be very helpful for enterprises.

Social implications: Mission, vision, strategy, strategic analyses, all those elements undeniably bring men of action nearer to success. However, we shouldn't limit ourselves to them; rather, giving all of ourselves, all our knowledge and commitment, we should reach for success with our own hands.

Originality/value: The article presents known methods: SWOT Analysis and the Key Success Factors (KSF). They are popular and the most commonly applied methods in enterprises. The value of the paper is based on their appropriate use in order to contribute to the firm's success.

Keywords: factors of success of enterprises, strategic analyses, case study, SWOT, Key Success Factors (KSF).

Category of the paper: case study¹.

¹ **Case study.** Case studies describe actual interventions or experiences within organizations. They may be subjective and would not generally report on research. A description of a legal case or a hypothetical case study used as a teaching exercise would also fit into this category.

Introduction

There is no golden recipe for success and it frequently happens that even the firms which have, it would seem, a foolproof strategy – go bankrupt. However, the realisation of proper strategies considerably helps in conducting business activity. Risk is an inevitable companion of firms' leaders. It is the managers who often have to make the decisions which weigh on the future of their firms. Sometimes they are correct decisions and bring the expected profits or even exceed them, but sometimes they end in a complete disaster or even bankruptcy of the enterprise.

There exist numerous methods which bring firms nearer to achieving success. A number of strategies have been elaborated on and numerous scientists have devoted a great deal of their time in order to determine the actual mechanism of achieving success on the market. However, history teaches us that application of identical procedures at two different time moments leads to completely different outcomes.

There are no accurately defined instructions or strategies whose application would guarantee the achievement of success. However, it can be undoubtedly claimed that a firm which has achieved success, has conquered the market. A growing number of new suggestions are being formulated for the firms which desire to succeed. It is not, however, such a simple matter, as there is an infinite number of factors which are involved in success. Their in-depth analysis might help hierarchise them and their adequate combination – create a 'success strategy' for the enterprise. Alas, there is no golden means for success and it frequently happens that even the firms which have, it would seem, a foolproof strategy – go bankrupt. Nevertheless, the realisation of appropriate strategies considerably helps conduct business activity. Risk is an integral companion of firms' leaders. It is the managers who often have to make decisions which weigh on the future of their firms. Sometimes they are correct and bring the expected profits or even exceed them, but sometimes they end in a complete disaster or even lead to the bankruptcy of the enterprise.

The aim of the present study is to show that it is impossible to clearly determine the particular factors conditioning the success of an enterprise on the market. Nevertheless, once a firm has already achieved it, the elements which have determined that competitive advantage can be searched out.

The following methods have been used in this study: the method of description and of comparative analysis, some elements of the SWOT and of the Key Success Factors (KSF) methods, and case study.

1. The gist and the factors conditioning a success of the enterprise

The firm's success or failure is the consequence of the adjustment of its capabilities to the challenges involved. We must be aware of the fact that there are no ready-made recipes or strategies which bring success. They can't exist as it would mean eliminating all kinds of competitive advantage. The basis of success of a given firm is specific to this and only to this firm. Many factors are involved in its success. They may be, for instance, its relationships with the stakeholders, who very often include in their ranks investors, clients, suppliers, employees, managers, trade unions, and the state. An effective firm shapes these relations in such a way that it will maximise its profits.

Success factors (SF) are hierarchised by firms and considered individually by each of them. Some factors have more significance for certain enterprises, some other for other enterprises. In fact, the notion of a firm's success is very wide (Cardwell, Geoff, 2008). Some entrepreneurs stress the size and the market share, some other - profitability and the advantages achieved by the shareholders. Some speak of technical efficiency and ability to implement innovations while others appreciate the reputation the enterprise has with its customers, employees and in business circles.

Evidently, the notion of success has not been very clearly defined. And it is not surprising, since success is not a single outcome but a process. We can speak of a given company's success only in retrospect. What is success today, may not be so any more on the following day.

Why do only few businesses among those starting on the market from a similar position and with a comparable supply of resources achieve authentic success, while others become only the (necessary) background in the industry, with the majority having fatal prospects and most frequently disappearing almost unnoticed? Research workers and experts have been trying to answer this question for many years. Accounting for the causes of firms' successes and failures, however, is not simple (Hoffmann et al., 2001).

Success is a very complex process and nobody can create a unequivocal formula to achieve it. However, through an insightful analysis we can distinguish certain factors which are undisputedly involved in it. Companies carry out a hierarchisation of their objectives, which may be the following (Pierścioneck, 2003):

- a specified sales growth rate in the particular groups of products and the total growth rate,
- maintenance of the market share in a given market (markets),
- a particular increase of market share in the particular markets (at a given time),
- attainment of the position of market leader or the domineering position on the market,
- entering a new market (markets), home or overseas,
- diversification of markets,

- maintenance of the current profitability level or its particular increase over a specified period of time to the average in the industry,
- attainment of the position of industry leader.

Success is determined not so much by the volume of the owned capital as by the ability to create a certain idea or find an idea to create a firm, the ability to create a certain vision and transform it into a particular mission or strategy (Islam, Md Aminul, et al., 2011).

When selecting a proper strategy for the firm out of many options, the firm's priority must be specified. The following three main criteria should be the basis of strategy selection:

- input, i.e. all the information related to the firm's surroundings and in particular to the power of competition, and the internal information, i.e. the firm's strong and weak points, production capability, resources owned and the like,
- the expected changes, all the changes pertaining to the firm's further development and its future e.g. the changes in the requirements concerning environment protection, in costs levels, in the internal structure of the organisation, in the assortment, or similar,
- the intended achievements such as e.g. winning new markets, increasing profitability, increasing the volume of the turnovers, or similar.

The success of a strategy depends on many factors, but the key factor is the choice of a particular variant and its implementation. There is, however, no universal method of choice of the strategy which will in all certainty bring success to the firm. Strategies are not objectively optimal and application of ready-made patterns may not bring the expected effects. All pros and cons should be carefully analysed and only then should the choice of a strategy be made. Customer satisfaction should be monitored all the time, as it may provide the measure of the strategy's effectiveness. It is important not to dissociate oneself from the constantly changing market, and the market research may help the firm build permanent success.

Strategy is the most important element in the management process, the outcome of the combination of the vision, mission, objectives and tasks of the enterprise. In order to create a strategy which will lead to success, actions aiming at elimination of uncertainty should be taken and such a project must be created which will fully specify the assumed aims and the paths of their realisation. Strategy is also often treated as the firm's secret, since it is not in its best interest for the competition to get to know it (Nieżurawski, Owczarczyk-Szpakowska, 2005, p. 35).

2. Methods useful in formulating of the enterprise's strategy

In order to elaborate on a proper strategy one must acquaint oneself with both the surroundings and the enterprise itself, identify the possible future changes in the surroundings and adjust the firm's reaction to these putative changes. It is exactly what strategic analysis

offers. It is a complex of actions and methods which diagnose the company and its surroundings, make it possible to assess its current condition, prognose its future operations and on their basis elaborate on the appropriate strategies. The notion of analysis is understood in a very wide sense: “not only as a set of methods and procedural stages but also as a mode of operation characterising people and organisations who think in terms of strategies”. And to think in terms of strategies means the following (Porter, 2008):

- undertake the efforts to take the cognisance of the current situation, study the opportunities, select the objectives, tasks and principles, use the resources and think many years ahead,
- use a complex of techniques and methods of analysis and synthesis, thus making realisation of those efforts and collection of the indispensable information possible,
- have the will to constantly change the areas and the methods of area change as well as the manner of the company's operation, in harmony with the changes in its vision and surroundings.

Strategic analysis must be adjusted to the current situation of the enterprise and it depends among others on its size, the sector in which it operates, the market life cycle of its products, the power of the competition, its organisational structure, the technologies applied therein, the manner of management, or similar.

Strategic analysis of an enterprise is a very wide notion. Depending on individual preferences, enterprises select the method of strategic analysis which they consider appropriate for them in order to further pursue the desired success: to prevent being removed from the market or appear on a new one, or extend the operation to the remaining regions or sectors. Apparently, there are numerous factors which can help achieve success or, on the contrary, inhibit the enterprise's development. That is why a properly prepared and conducted analysis is indispensable in every business. Provided it is appropriately conducted, it allows to predict the firm's future. Admittedly, it gives a somewhat blurred image and one that couldn't give us the certainty of success; nevertheless, it makes it possible for us to be ready for the continual changes taking place in economy. “Hence, the strategic analysis allows to define the strategic position of the company due to the juxtaposition of the opportunities and threats coming from its surroundings on the one hand, and on the other – of its weaknesses and strengths resulting from the internal shape of the company's potential” (Grant, 2016).

Below, two methods of strategic analysis have been presented synthetically, i.e. the SWOT method and the KSF method. They are very popular methods which are supposed to indicate to enterprises the path to success. Now, is it certain that an adequately performed analysis is sufficient in itself? In order to judge this, one must take a closer look at them.

SWOT Analysis

SWOT analysis is one of the traditional concepts of strategic management and consists in an analysis of the strengths and weaknesses of an enterprise in the conditions of opportunities and dangers created by the surroundings. The name 'SWOT' is the acronym of the following English words: strengths (strong points), weaknesses (weak points), opportunities (chances) and threats (dangers) (Pickton, 1998).

SWOT **analysis involves** both external and internal **analysis**. External **analysis**, i.e. opportunities and dangers, is the analysis of all the factors influencing the firm's operation which come from the outside, from beyond the area of its operation, and over which it has no control. Internal **analysis**, i.e. strengths and weaknesses, is in turn the **analysis** of the current firm's potential and of its developmental opportunities.

External **analysis** should include such areas of the external surroundings as the following (Valentin, 2001):

- socio-cultural areas,
- legal,
- political,
- demographic,
- technical-technological,
- economic,
- physical and the like.

In this analysis the following factors among others should be taken into account and evaluated: law, customs regulations, taxes, technological advances and probably the most important one i.e. the competition. The situation in the surroundings of the enterprise is constantly changing. The ongoing events may create new possibilities; there may appear new impulses to undertake risks and activate production marketing operations. However, the turn of events may be such that the business activity conducted so far may turn out unprofitable. Apparently, these factors may bring both opportunities and threats. Opportunities may be defined as the tendencies and phenomena in the firm's surroundings which, if properly taken advantage of, may become stimuli for its growth and help alleviate the existing difficulties, whereas threats are all the external factors which are perceived as barriers, obstacles, additional operational costs, or dangers.

Internal analysis aims at an identification and evaluation of the material and non-material factors which favour or inhibit the company's growth both at present and in the future. Its objectives are the following:

- indicating these elements in the company's resources which may be treated as its undoubtable strengths (special values differing it from its competitors) in the clash with potential competitors on the market,

- disclosure of putatively weak areas (limitations), decreasing the force of business's own competitive impact and, at the same time, creating an opportunity for an effective attack on the part of the competition,
- defining the particular predispositions of the enterprise to realise its objectives in the complex market area, including the interdependencies between the particular elements and their significance in the whole set of tools of influencing the market.

In internal analysis, the most important instruments of the company's operation must be taken into account. G. Lancaster and L. Massingham present four groups of such instruments (Lancaster, Massingham, 2010).

1. *marketing instruments*, i.e. trademarks, the firm's image, distribution, the firm's product's rank, prices, sales opportunities, marketing systems,
2. *financial instruments*, e.g. capital cost, financial liquidity, profitability, the structure of assets, the price-incomes ratio,
3. *production instruments*, i.e. generating capacity, equipment age (degree of modernity), production, quality control, economics of scale,
4. *personal instruments*, i.e. staff's qualifications, adaptability, the intended labour force, industrial relations, the working conditions.

SWOT analysis is not a very complicated method and yet it is still relatively complex. The juxtaposition of opportunities and threats against the strong and weak points of the firm allows to define fairly accurately its position against the background of other firms. It helps formulate the goals of future actions and identify the strategic variants.

When analysing opportunities and threats in sufficient advance, we gain time, which is indispensable to make the due preparations, for instance in the area of labour resources or technology, or to introduce a new product, enter a new market or quit an unprofitable market segment, or the similar (Pahl, Nadine, Richter, 2007).

Irrespective of the approach taken, wide or narrow, the SWOT analysis has some undeniable advantages. First of all, it is the most comprehensive method of analysis, since it presents all the factors describing the developmental opportunities of an enterprise in one matrix. At the same time, it focuses attention on the most significant strategic factors from each of the four groups. It is a universal tool. Depending on the degree of knowledgeability of the persons using it and on the needs, SWOT analysis may be both a very simple tool and a very complex one if, when filling in the matrix, we will be using a set of complex and precise techniques of analysis. SWOT analysis allows to move easily from the stage of strategic analysis to the stage of strategic planning. The pattern of SWOT analysis helps us observe both the strengths and weaknesses of the enterprise and in its environment we can perceive both the threats and the developmental opportunities. Another advantage of SWOT is the differentiation it makes between the factors which the firm can influence and on which it should concentrate its attention, and the independent factors, also very important for the enterprise, but which it cannot influence and still they have to be taken into account when planning the strategy.

Analysis of the Key Success Factors (KSFs)

The method of **analysis** of strong and weak points using the set of key success factors is a method of **analysis** of the enterprise's resources and capabilities and an alternative way of making up the strategic balance. The above approach consists in limiting the research to the group of criteria which we consider crucial, decisive as far as the competitive standing and the developmental opportunities of the enterprise are concerned. This group of criteria is called key success factors (KSFs) (De Vasconcellos, E. Sá, Jorge Alberto Sousa, Donald C. Hambrick, 1989).

The so-called *Pareto '80-20' principle* has given a start to this method. It assumes that in an organisation only 20% of events decide about 80% of effects and vice versa – the remaining 80% of events influence 20% of the other effects (Reh, 2005). It clearly follows from this principle that not all the factors involved in the firm's success should be studied, but only those 20% which are responsible for its success or failure, and that only the latter should be analysed in detail. It is a simplified assumption, as the proportions of these factors may be different in the reality of a particular enterprise. However, the error connected with using the KSF method in the evaluation of the firm's potential cannot be significant. The correct analysis and its quality depends on an adequate selection of the factors which fulfill the strategic functions in a given sector.

Economic sectors differ from each other with respect to the list of key success factors. The above list is, therefore, one of each sector's properties and, at the same time, the answer to the following question: "On what factors does the enterprise's success depend in a given sector?" The sector leader meets the criteria included in the list of key success factors to the greatest extent.

The establishment of the list of key success factors in the sectors characterised by a small degree of differentiation of products and a uniform customer structure is not too difficult. However, in the situation where an international market is involved, one which has many customer segments, the task of establishment of these factors gets complicated. Separate lists of key success factors must be elaborated on for the different segments of the sector.

The list of key success factors contains the criteria which are the most important but not sufficient to help gain a competitive advantage and it indicates in which areas and on which problems the enterprise should focus its attention. Competitive strategy consists in the choice of one or several key success factors, their improvement and gaining a competitive advantage in this manner (Thompson, Stricklan, 1996, p. 83). The list containing the key success factors for a given sector may have several or a dozen or so entries. A correct performance of the **analysis of** strategic standing of an enterprise requires using one of the following methods:

- conducting a two-stage **analysis**, with the first stage being the analysis of the enterprise according to the full list of criteria evaluating the firm's condition in all its areas of operation and making on that basis a list of its weak and strong points; the second stage consists in focusing on the key success factors and subjecting them to an insightful analysis;
- limiting the analysis only to the list of key success factors, on condition that the list will be relatively complete, i.e. it will take into account the most important factors from the main areas of the firm's activity.

It is indispensable to create a list of factors characteristic for a given sector so that the strategic analysis may be conducted correctly on the basis of the method of key success factors. It should include such elements as (Grunert et. al., 1992):

1. *market position* – presented for instance in the form of the firm's market share in per cent,
2. *item cost* – measured using the value of a unit cost, the ratio of the fixed costs to the variable costs, the cost structure, or the similar,
3. *the firm's image and its presence on the market* – it examines market customer behaviour, their opinions concerning the product and the firm itself. Market research is the source of information,
4. *technical skills and the level of technology* – indirect evaluation through the evaluation of the quality of the firm's products, its technical capabilities and the working culture of the staff, the competitiveness of the technology used in production, or the similar,
5. *profitability and financial potential* – complex methods of financial analysis, portfolio methods and an analysis of each product's life cycle are used,
6. *organisational and managerial level* – measured using various indices, e.g. defining the labour discipline and performance, the quality of the realised strategies, information system efficiency, or the similar.

Carrying out a proper strategic analysis of the enterprise using the method of key success factors encounters numerous difficulties on its way. The difficulty in establishing a precise list of key success factors has already been mentioned. The establishment of the point of reference and the time perspective from which the condition of the company's development should be examined is another problem (Akkermans et al., 2002).

The majority of specialists in the field of strategic analysis believe that an evaluation of strengths and weaknesses should be performed by a team of consultants composed of the following members: the executive staff and specialists from the enterprise under evaluation and external consultants (Umble et al., 2003).

The evaluation of a given enterprise with respect to its competitors or a strategic group may also be assumed as a reference point in the evaluation of this enterprise. Such an evaluation will be relative; however, it will not allow to establish objectively the standing of the enterprise and its developmental opportunities since the outcome of the evaluation depends on who we are

comparing ourselves with. That is why also from the methodological point of view it is more appropriate to compare a firm with an ideal profile of key success factors. This method is more objective, for examining all the enterprises from a given sector, we are capable of making a ranking list and clearly establish the best and the worst functioning enterprise and the standing of the firm under study against the background.

Another methodological problem which can be encountered when using the method of key success factors is posed by the time perspective. The KSF method may only serve as a diagnostic tool or when carrying out changes in the strategic position of a given firm, and in this case the prognosis time depends on the future which we predict and for which we create the strategy of the enterprise. The point method of the KSF is the method usually basing on small teams work. It consists of the following stages:

- making a list of KSFs for the sector under examination,
- defining the weights of the particular success factors in question,
- finding out whether in the analysed enterprise each of the key success factors is a weak or a strong point and expressing this rating in terms of numbers,
- comparison of the sum of the weighed ratings for the given firm with the maximum ratings and (or) with the ratings of the other enterprises from the strategic group or sector.

In order for the analysis – performed using the point method of key success factors – to be objective and accurate, the so-called operationalisation of each factor must be performed, i.e. before we enter the phase of evaluation, it must be established in what conditions a given factor will be scored 1, 2, 3, 4 or 5 points. For example, if one of the success factors is a low unit cost, then we assume that the cost leader will get the highest score, the firm characterised by the highest unit costs – the lowest, and the enterprise whose unit cost oscillates around the sector average – an average score (3 points).

The SWOT method and the method of key success factors rank as the most popular methods of strategic analysis of 'ourselves' and of our competitors. It is very important for a firm to strive for success. Due to these methods enterprises have a chance to achieve it. They do not give reliable directions whose fulfilment would guarantee success, but they provide business makers with valuable indications whose skillful realisation brings enterprises nearer to 'perfection'. However, one should not forget about other factors which shape the business's success. Sometimes, in spite of a good strategy and a properly conducted strategic analysis, an enterprise goes bankrupt. Why does it happen? Each entrepreneur who wants to achieve success has been asking himself this question. The risk which is taken all the time by entrepreneurs only occasionally brings the expected outcomes. If entrepreneurs take into consideration the results of strategic analysis, performed using for example the SWOT or the KSF method, then it is important for the analysis to be conducted as accurately and in as much detail as possible, since it may prove to be the key to achieving success by the enterprise.

3. Case study of selected enterprises

3.1. *Nike* – a Mystical Strategy - Dash for Success

Nike has undeniably succeeded on the market and it certainly has succeeded in the field of pushing sports on the back burner. The story of *Nike* reveals the branding mechanisms and their ability to put everything in the shade. This concern virtually swallows cultural space and is a model super brand from the 1990s. “It shows the tendency, characteristic for branding, to blur the boundaries between the sponsor and the sponsored. Here is the producer of running shoes who set himself a goal of unseating professional sport, the Olympics, and even the famous sportsmen, in order for himself to become the only valid definition of sport”. *Nike*’s president, Phil Knight, dealt with shoes sale already in the 60s. However, he made his real fortune at the time when professional sports shoes had become an indispensable requisite of the ‘jogging madness’ which had embraced America. However, when the fashion changed in the middle 80s, other sports firms dominated the market. Nevertheless, *Nike* did not introduce a new type of sports shoes; they ‘left’ it to Adidas and Reebok. According to Knight *Nike* was to get transformed into “the best firm in the field of sports and fitness in the world” (Willigan, p. 94).

Nike was said to be a sportswear company established by a well-integrated gang of men who loved sports and deeply respected and admired great sportsmen. Actually, the process of establishment of the *Nike* company was much more complicated. “We may distinguish three basic guidelines by which *Nike*’s executives were directed. The first one was the following: “Make stars out of a selected group of sportsmen stars in the Hollywood style, who would be associated not with their teams and sometimes not even with the discipline they cultivate but with some pure ideals pertaining to sport as such, like for example breaking down barriers or perseverance – in other words - with the ancient Greek and Roman ideal of the athletic virile body. The second was this: “Play *Nike*’s ‘Pure Sport’ and its team of sports superstars against the obsessed with regulations, fossilised world of the traditional sport”. And the third and the most important indication: “Stamp your logo everywhere as if your life depended on it” (Willigan, p. 94).

Nike decided to create a superstar. They used for this purpose the uncommon basketball skills of Michael Jordan, which elevated *Nike* to the peak of popularity, but, in spite of the fact that Jordan had already been famous, it were *Nike*’s commercials which made him a global superstar. It is true that sportsmen like Muhammad Ali or Babe Ruth had enjoyed popularity already before the foundation of the *Nike* company, but none of them has reached such heights of popularity as Jordan has. “Sports stars from before *Nike*, irrespectively of however talented and worshipped they were, couldn’t ‘break off the ground’ (Klein, p. 70).

The year 1985 was a landmark year in which sport got introduced to the world of entertainment. *Nike*’s commercials with Michael Jordan’s participation were simply delightful: freeze-frames, unusual close-ups, quick cuts, all that made Jordan look as if he could fly.

“The idea of involving sports shoes production technology in the creation of a higher being – Michael Jordan swimming in the air in slow motion – is an excellent example of a fairy-tale myth-creating method” (Klein, p. 70). Commercials with Jordan were the first video-clips, a total novelty. Jordan himself says: “Phil Knight and *Nike* have made a living dream out of me” (Klein, p. 70).

Nike has tried various ways to achieve the central position in professional sport. They even opened their own agency which was not only to represent sportsmen in the negotiations of the conditions of contracts, but also to create integrated marketing strategies for customers, complementing *Nike*’s marketing strategy. As Knight once said “We do in sport – because sport is our field of activity” (Klein, 2014, p. 73). It was Knight's wish to set sport on a pedestal, which he has managed to do anyway. “In Nike Town on Manhattan, however, we will not see Michael Jordan or even basketball as a discipline of sport, but a revolving shoe. Like a prima donna, it draws the light of all the spotlights to itself – the first famous shoe in the world”.

Nike Town is not only an ordinary shopping centre – the shops are almost temples which are the destination of pilgrimages of the faithful. “In Nike Town on East Fifty-seventh on Manhattan (...) wherever you look, swoosh is identified with sport in glass cabinets, in which the ‘definition of sportsman’ is presented with reverential care, in inspiring quotes on ‘Courage’, ‘Honour’, ‘Victory’ and ‘Team Work’, with which the parquet floor is encrusted, and on the inscription dedicating the building ‘to all the sportsmen and their dreams’.

Nike is the king of super brands. *Nike*’s icon resembles a stamp mark off – ‘*Nike*’s pipe’. That ‘pipe’ can be seen practically everywhere: in the company salons, on T-shirts, socks, underwear, beanies. Nike’s employees tattoo their bodies with this icon to show their adherence to Nike. It is undoubtedly a reflection of the great role played by the *Nike* brand in the minds of its adherents.

Nike has indisputably achieved a stunning success. Sports superstars have been used by the firm to create its image. The synergy effect that *Nike* has achieved in their doings has exceeded the boldest expectations. The firm does not, however, intend to rest on their laurels. *Nike* bravely declares that “in the future Disney and not Reebok will be the firm's competitor”. The plans are ambitious; however, the time will tell how the things will work out and how will ‘*Nike*’s pipe’s’ career develop (Klein, 2004, p. 72).

3.2. Polish Cosmetics on *Broadway* – Inglot Ltd. – a Strategy of Internalisation – a Way to Success

The firm *Inglot* came into being over 25 years ago in Przemyśl. It was set up by Wojciech Inglot, a chemistry studies graduate from the Jagiellonian University. He started to work in Polfa in Krakow, in the Research and Development Department. However, he dreamed of setting up his own business activity. The first product he made was a tape head cleaning fluid, the subsequent one – a deodorant stick. His stay in the USA during his studies had resulted in the idea of creating colourful cosmetics. The first product of this type was a nail polish.

In 1994 Inglot entered into cooperation with the firm *Kolmar* which was one of the biggest concerns in the world dealing with the so-called contract manufacturing. At that time the Przemyśl company was producing cosmetics of many well-known brands, thus gaining access to new technologies. Thanks to that, *Inglot's* chemists had acquired the knowledge which was to make it possible for them to produce high quality cosmetics in the future. Five years later the cooperation with *Kolmar* ended and Wojciech Inglot decided to develop his own brand. In 2000 *Inglot* started to sell his own cosmetics in drugstores, where they were placed next to very renowned brands. As he didn't stand a good chance against the latter, he decided to introduce testers of his own cosmetics. In 2002 the first company salon was opened. It was an extremely innovatory action – *Inglot's* salon was the first one set exclusively to sell coloured cosmetics of a single producer. The president of the company argued that it was the only possible solution since he didn't stand a chance of being noticed in the toilet networks among lots of other brands. The small surface where he could be able to display his products would be insufficient to present his very rich offer. Besides, setting up his own stalls and salons *Inglot* was able to give up middlemen, which has considerably lowered the costs. However, *Inglot* is not only hundreds of colours of eye-shades, lipsticks, nail polishes and liners. In their offer they also have brushes and make-up applicators, artificial eyelashes, vanity bags, looking glasses and make-up remover wipes.

Around 95% of all the products are made in Przemyśl. The remaining 5% are e.g. eyeliners produced by the firm Faber Castel, glass packaging imported from Italy, and plastic packaging – from Taiwan (Burda, pp. 32-37).

Inglot's expansion overseas started with Canada. The owners of the shops with clothing accessories got interested in *Inglot's* island in Warszawa. In this way, in the end of March 2006 the first salon in Montreal got opened. That move triggered a chain reaction. Three months later another shop was opened on Malta. *Inglot's* Canadian shop was noticed by an Australian investor and that is how the international salons chain further developed. Wojciech Inglot grants a franchise to foreign investors; however, he also has his own salons. In July 2009 *Inglot* opened a salon in New York, on Broadway, at Time Square. The president of the Przemyśl company had wanted very much to open a shop in the USA and he eventually did. In February 2010 the Polish firm took part in the prestigious fair of make up: The Makeup Show in Los Angeles. Precisely during that fair *Inglot* got a very high note and the title of the firm's MAC competitor.

It is worth mentioning that Polish products are sold at considerably higher prices abroad than on the domestic market; however, they are regarded as specialist products there. In spite of the fact that their overseas prices are higher than their home prices, they are still considered reasonable in comparison to other brands of coloured cosmetics.

Grupa Kapitałowa Inglot consists of the production company *Inglot Ltd.* (a private limited company) and the company dealing with distribution, *Inglot RSC Ltd.* The incomes from sales have been rising since 2005, whereas the profit has clearly risen since 2006. It is not difficult to associate that year with the date of the beginning of internationalisation of the firm. It can be

seen therefore that the company makes profits and its internationalisation does it good. Now the question should be asked what Wojciech Inglot did in order to win foreign markets. Firstly, he offered an interesting, eye-catching product. His colour palette is probably the widest among those available on the Polish market. However, in addition to colour, the cosmetics produced by the Przemyśl factory are characterised by high quality and a relatively reasonable price. A woman entering an Inglot's store is delighted with the range of colours accumulated in one place and the opportunity of free choice under *the Freedom System*, which is an innovative idea. An important advantage of Inglot's stores is the service – the staff focus on advising customers. There is also a possibility of a makeup test. The next positive feature is the spaciousness of stores and the fact that in some places they are combined with a beauty parlour. Besides, you can speak of Wojciech Inglot's good luck because the first offer of foreign cooperation appeared unexpectedly, following an incidental contact of the investor with the firm's island. It should be noted here, however, that the stand was attractive enough to draw the Canadian's attention. Here you cannot speak of 'luck' any more, but once again of a good product and a well-prepared distribution channel.

3.3. Breitling – condemned to success – strategy of innovativeness, specialisation and quality

Leon Breitling started his career with mounting mechanisms in one of the local workshops in Saint Imier. When he turned 24, he decided that it was high time he got independent and for this reason he opened a small watch making workshop. When by the end of the XXth century a new fashion – sports – prevailed in Europe, Breitling had already prepared a whole arsenal of stopwatches, which sold so well that soon his workshop in Saint Imier turned out too small (Richter, Schiffer, 2007).

Without thinking too long, he moved to the city of watchmakers: La Chaux-de-Fonds, where in 1892 he built a factory. Its official name was: Leon G. Breitling SA. Montbrillant Watch Manufactory and its special product were, naturally, clocks with stopwatches.

Leon Breitling's death coincided with the outbreak of World War I and his son, Gaston, took over the management of the firm. As a talented watchmaker he knew one thing for certain: a very attractive product was crucial. And he believed that watches which could tell the time with great accuracy were it. Therefore, he started experimenting with clock faces: he placed graduations on them facilitating various measurements e. g. of an average speed or distance. Success didn't take long to come: the army got interested in reliable chronographs by means of which they could synchronise to the second the time of an artillery bombardment with a simultaneously carried out infantry attack. And in these, frequently extreme conditions the wrist watches with stopwatches provided by the Breitling firm were perfectly working.

The reputation they had gained of a firm producing reliable watches turned out useful also in the times of peace. A clock with a stopwatch, patented at the beginning of the XXth century, bearing a promising name *Vitesse* (i.e. *swiftness*), became policemen's favourite toy.

The graduation on the dial (from 15 to 150 km/h) helped establish the speed at which the first automobiles were moving. And they could develop the speed of up to even 30 km/h at that time!

When after Gaston Breitling's sudden death the reins of the company were taken over by his almost 20-year old son, Willy, in Europe nothing else but civil aviation was being discussed. Willy knew that every plane had to have fail-safe clocks and it didn't take long for Breitling chronographs and deck clocks to appear on the dashboards of many planes. However, the biggest order was yet to come.

In 1937 Breitling created and patented a system of improvement of functionality and reliability of deck clocks. The reports of the new technology quickly reached the British Aviation Ministry. Shortly before the outbreak of World War II its representative contacted the Breitling firm and placed an order for a considerable number of deck clocks for the planes belonging to the Royal Air Forces. Breitling managed to promptly realise the commission and the clocks got to London still before the war.

In 1944 Breitling created a clock by means of which pilots could execute even very complex calculations of, among others, velocity, the distance covered and fuel consumption. Breitling timepieces were so well known that at the beginning of the 1950s they were already working on the dashboards of planes belonging to over 25 airlines.

In 1952, Breitling came up with a special model with a stopwatch which could very well be used as a navigation instrument. It was called *Navitimer* (from the words *navigation* and *time*) and it became pilots' iconic clock all over the world. Some elements of this model have remained unchanged until today and, the classic of its genre, it is still produced.

Strategy of innovativeness, quality and specialisation

Breitling is distinguished for its high specialisation in the field of timepieces for special purposes. Many revolutionary events, solutions and inventions may be noted in the history of the Firm. The most characteristic model and the one the most commonly associated with the brand is *Navitimer*, which is equipped with a navigational computer enabling a quick execution of all the calculations connected with air navigation.

The clocks from the *Windrider* series are the model respected by professionals. These models are able to resist the pressure of up to 30 bars, are shock resistant and equipped with a rotating ring, which is used to measure time underwater.

The series *Professional* is directed to the men who need something more than a usual watch in their everyday work. This collection includes, for example *Aerospace*, used by RAF pilots, or the *Emergency* model with a transmitter that allows you to call for help in extreme conditions, meant for pilots, soldiers and travellers. Two British guys whose helicopter once crashed over Antarctica got rescued thanks to the watch signal transmitted by *Emergency*.

The *Aeromarine Line* is addressed to professional divers. The *Colt Ocean* women's model, in turn, is diamond-studded and is referred to as the most sporty timepiece for ladies. A wonderful marriage of watch making and automotive art have resulted in the stylish *Breitling-*

for-Bentlej collection. Both brands equal each other in prestige, elegance and the pursuit of top performance. Luxury models of this series are distinguished for their brave design and a thorough elaboration of the detail. All the mechanisms used in Breitling clocks undergo a very restrictive control and tests in the Swiss Institute for COSC Chronometers Testing.

At present, Breitling is a global leader in the production of mechanical timepieces. It is also the only clock brand in which each model of every collection has an official certificate of the timepieces tests issued by COSC. In 2009, on the occasion of 25th anniversary of the brand's existence, *Calibre 01* was created – the only mechanism which is entirely produced and mounted in the Breitling manufacture. The annual production of Breitling clocks exceeds 150,000 pieces.

Undoubtedly, the strategy of innovativeness, specialisation and quality was the factor that has determined the success of the Breitling brand.

Summary

Success is an extremely complex process. It is not possible to determine a concrete list which will help us certainly achieve it, but the examination of factors and their analysis will make it possible to observe certain regularities which will be very helpful for enterprises. It will be possible to search out certain analogies, improve old theories and ideas or construe completely new ones on their basis. An important part in the elaboration of a winning strategy is played by the mission and vision. Obviously, it does not give any certainty that if the firm follows all the directions, it will achieve the desired success, but certainly it is a 'landmark' indicating how to proceed in order to avoid isolation and being removed from the market. Two strategic analyses, called SWOT Analysis and the Key Success Factors (KSF) Analysis, are very helpful here. They are the most popular and the most commonly applied methods in enterprises, and their appropriate use may contribute to the firm's success.

Running business activity is not a simple matter. Sometimes, in spite of a good, correctly conducted strategic analysis the firm does not succeed. Why is it so? Sometimes it is enough to find yourself in the right place at the right time, have wonderful ideas, a sense for business or simply a bit of luck to achieve success.

Success may be achieved consciously or through a chain of luckily coinciding events. Evidently, the firms which achieved their first successes without strategic planning had at their disposal the fortitude of their charismatic leaders. Other firms, e.g. Nike, bet on almost mystical elaboration of a foolproof strategy and its implementation brought the expected results.

The internationalisation of an enterprise and a good product may prove success-making factors. The cosmetic factory Inglot may be a good example here. The possession of a good and interesting product offer considerably facilitated the internationalisation process in its case.

It is important for the product to attract customers, and it can also attract foreign investors, as it had place in the above mentioned case. It is, among others, thanks to the good features of the product and to the good distribution channel that Ingot has succeeded on foreign markets (Nieżurawski, Duarte, 2016).

Enterprises entering foreign markets must be able to adjust to the conditions found there. It calls for the modification not only of the products, but very often also of the manner of management of the whole business. Already today it is obvious that internationalisation is becoming part of strategy of a growing number of firms which have to put an enormous effort in its success.

Breitling Enterprise is a good example of implementation of the strategies of innovativeness, specialisation and quality which determined the success of the Swiss enterprise.

As can be concluded from the above examples, it is clear that there are people who are not afraid of risk and who infect others with their passion, stimulating them to act. It is they who create history, which may become a legend already tomorrow and on whose basis young people, inexperienced businessmen, will be building their own firms. Perhaps this is precisely the key to success. Mission, vision, strategy, strategic analyses, all those elements undeniably bring men of action nearer to success. However, we shouldn't limit ourselves to them; rather, giving all of ourselves, all our knowledge and commitment, we should reach for success with our own hands.

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FOOD STRATEGIES AND RESTITUTION OF URBAN AGRICULTURE ILLUSTRATED BY THE CASE OF SELECTED SOLUTIONS OF METROPOLITAN AREAS

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Purpose: The purpose of the paper was to present and emphasise the importance of the concept of food strategies in creating sustainable development of metropolitan areas and restitution of agriculture. By reviewing Canadian and French solutions, among other things, an attempt was made to indicate the importance of urban agriculture in shaping sustainable development (SD) of metropolitan areas.

Design/methodology/approach: In order to illuminate the phenomenon of urban strategic planning in the restitution and development of urban agriculture, a descriptive case study was adopted as the methodology of qualitative research, where the empirical basis consisted mainly of urban plans of selected cities, study of the subject literature and analysis of selected legislative acts.

Findings: The presented models of coherence building at a local level show that only planning and new generation strategic plans of a metropolis that take into account urban food systems are able to balance long-term development objectives and protect natural resources for future generations. Such a model is characterised by not only innovative methodology of planning, but also innovative operational instruments and new ways of implementation.

Practical implications: using accumulated knowledge and experience in managing sustainable development of cities.

Originality/value: presenting world standards in planning sustainable development of cities and emphasising the importance of urban food production and agriculture as a zone of a metropolis's natural balance.

Keywords: food strategies, metropolitan area, urban agriculture.

Category of the paper: case study.

1. Introduction

At a time of urban civilisation struggling with negative effects of climate changes, an important question is how cities (in particular those densely populated) will ensure food security and sovereignty to their inhabitants, while increasing their self-sufficiency. Many metropolises around the world seek to become independent from food import from rural areas by locating agricultural production within their borders (Demailly, and Darly, 2017).

The rediscovery of gardens and food production in cities has revived a stream of research on urban and peri-urban agriculture (UPUA¹) defined as "the growing of plants and the raising of animals within and around cities" (FAO, 2019). Urban agriculture has gained in importance in recent decades, starting to fulfil a more and more significant role in the creation of local, alternative food systems. It is becoming an important topic, especially in the context of the popularity of the idea of sustainable development. There is a clear agreement among urban decision makers and scholars in highly developed countries that urban agriculture could be a tenable way of enhancing urban sustainability (Sarker et al., 2019; Ayambire et al., 2019). UPUA is seen as having the potential to contribute to more sustainable and resilient cities (Ferreira et al., 2018). The literature also stresses that agriculture, through its economic, social and ecological functions, presents potentials for meeting some of the targets of the 11th Sustainable Development Goal (Azunre et al., 2019). Moreover, numerous authors pinpoint that urban agriculture has a wide array of functions, such as environmental, social, economic and even cultural (Specht, 2016).

Given the huge urban pressure and dynamic development of cities, scholars agree that urban and peri-urban agriculture can only be sustained if city authorities consciously integrate it into the urban spatial planning processes (Azunre et al., 2019). A number of policies, solutions and tools are currently employed to protect arable land against urban expansion and encourage people to carry out agricultural activity in cities, including coordination of food supply actions. Among them, of importance are zoning policy, agricultural buffers, 'Right to farm' ordinances, acquisition of farmland through trusts, taxation, and national legal regulations, etc. (Spataru et al., 2020).

The different tools for improving the functioning of agri-food systems designed to provide city inhabitants with food are used in different countries to varying extends and with varying results (Ayambire et al., 2019), constituting a wide range of solutions that can be implemented in other places. This study presents examples of solutions/practices that can facilitate the integration of urban agriculture with urban spatial planning. The paper concentrates on presenting solutions that include urban food systems within the sphere of urban planning, with a particular focus on the restitution of agriculture and farmland in selected cities of the United States, Canada and Europe.

¹ Urban and peri-urban agriculture – UPUA.

The purpose of the paper was to present and emphasise the importance of the concept of food strategies in creating sustainable development of metropolitan areas and restitution of agriculture.

2. Material and the research method

The paper presents results of analyses reviewing selected solutions that included food strategy into urban strategic planning systems.

The use of the examples of world metropolises was intentional. A lot of attention was given in particular to French solutions. This is because urban strategic planning in France, its position and role, are regarded in Europe as a model – also with regard to the issue of farmland preservation (Perrin et al., 2020). France – through its experts and professionals in the field grouped e.g. in the Federation of Urban Planning Agencies, which is independent from municipal authorities – has made a significant contribution to the shaping of EU urban policy. Moreover, urban planning in France is constantly improved so that arrangements made at the EU level can be implemented both at the governmental and local levels (Geppert, 2015).

In order to illuminate the phenomenon of urban strategic planning in the restitution and development of urban agriculture, a descriptive case study was adopted as the methodology of qualitative research. The materials and key data were derived from the literature on the subject, selected legislative acts and documents related to the field. A study visit to the Lyon Urban Planning Agency and urban documents received there also contributed to gaining a deeper understanding of the French planning system.

An in-depth insight into the issue was gained, and detailed analyses of urban documents were conducted with the help of an urban development expert operating in the Team Europe network established under the European Commission. Given the importance of the subject and its in-depth analysis, the results of the study were found satisfactory and worth presenting to a wider audience. The description of the presented solutions should give the reader an idea of what a plan of the conditions and directions of a land use in a city, municipality or region should be and how it should function.

3. Food strategy as an official document

As a rule, food-related matters have always been perceived as a problem of agriculture and rural areas. However, historically, urban development and food supply to cities have always been interdependent. For many years, various groups in many countries have demanded from

municipal authorities to take an interest in the issues of agriculture, reflect on the functioning of the urban food system and place the food system within the sphere of urban planning. Demands were put forward by inhabitants, and pressure was put by planners and practitioners as well as academic circles. Yet, the problem of food for cities is still viewed in many countries worldwide in terms of supply and demand or free market.

Many cities, in particular large and densely populated ones, attach growing importance to coordination of food supply activities. The biggest metropolises of the United States, Canada or Europe give more consideration to improvement of agri-food systems designed to provide inhabitants with food. In order to efficiently manage both agricultural areas and food security of their inhabitants, metropolises such as London, New York, Vancouver or Toronto draw up documents, in addition to strategic urban spatial plans, to facilitate the implementation of food strategies. London City developed the Urban Agriculture Strategy and declares that it implements it through cooperation between the city and urban community (Urban..., 2018). Vancouver has its Local Food Action Plan (Local..., 2013). Montreal is implementing the provisions of the Metropolitan Management and Development Plan that includes the Agricultural Zone Development Plan (Rapport..., 2015). In Paris, there is the Directional Scheme of the Île-de-France Region (Schéma..., 1976, 1994) which places agriculture within the sphere of responsibility of urban policy due to its unprecedented function of balancing urban built-up areas. Meanwhile, in the Directional Scheme of the Rhône-Alpes Region and its capital Lyon agricultural areas were recognised as an economic area in its own right, which, additionally, due to its specificity, requires stability in terms of its borders, area and time (Lyon, 1991, 2010). Other cities draw up food strategies, among other things - if not for the metropolis as a whole, then for individual districts or agricultural zones.

According to Mansfield and Mendesa (2012), who conduct studies into municipal food strategies and integrated approaches to urban agriculture in the largest cities of Canada and the United States, the fundamental role of cities is to identify the weaknesses of the food system. The only response of local authorities is to re-focus on the integrating approach to urban agriculture and on combining numerous separate food problems into one system. The authors note lack of comprehensive urban food strategies that would address these problems in a coordinated manner. According to them, urban food strategy should be understood as a formal "official" plan or a roadmap that helps municipal authorities to place the full spectrum of food system issues within a "uniform political framework". The idea is to integrate the issues of food production (to which the term of urban and peri-urban agriculture corresponds in strict sense), processing, and distribution, food access and waste management (Mansfield, and Mendes, 2012).

4. Food strategies in selected metropolises and regions

In North American cities, urban agriculture was already recognised in the early 1970s, but its planning did not develop on a wider scale until the late 1990s (Pothukuchi, and Kaufman, 2000). The issues of urban agriculture and food production in cities started to become a subject of more extensive research, but also cooperation between e.g. scholars and local authorities. In the USA and Canada, scholars (Mansfield, and Mendes, 2012; Bhatt, and Farah, 2016, among others) along with urban planners and representatives of local administration reviewed a dozen or so cities to find out how urban agriculture is addressed in spatial development plans. Also in Europe, already a decade ago, at the initiative of inter alia the Association of European Schools of Planning (AESOP²), academic urban planners and practitioners addressed the issue of territorial planning of sustainable food for cities (Vidal, and Fleury, 2009, among others). These studies present a wide range of the examples of solutions that were applied and successfully implemented in selected metropolises regarded as pioneers in the area of sustainable urban development and restitution of urban agriculture.

Montreal (Canada) is regarded among North American cities as a leader among cities promoting urban agriculture. The tradition of cultivating community gardens, which was brought by immigrants from France, became a permanent fixture of urban landscape. It also impacted the life style and leisure time of the city's inhabitants. Projects implemented in various districts to engage citizens, institutions and local authorities in the works for the benefit of urban agriculture are currently regarded as a model solution. A significant factor in stimulating the activity of local administration is the bottom-up force, i.e. social pressure from inhabitants, increasingly numerous and strong urban movements promoting urban greenery, and other bottom-up urban gardening initiatives. We can also see better and better organised citizens' initiatives that seek the interest and support of municipal authorities by various ways. An example is civil action initiative which, through public consultation on urban agriculture, led to the establishment of the Standing Committee of Urban Agriculture at the urban level. Apart from that, the authorities of the Metropolitan Community of Montreal (CMM³) implement the provisions of the binding Metropolitan Management and Development Plan (PMAD⁴), and inform the inhabitants about the progress of the implementation of Agricultural Zone Development Plans (PDZA⁵) or projects designed to protect the greenery and water of Greater Montreal (Rapport..., 2015). Bhatt and Farah (2016) claim that organised actions, citizens' projects, bringing together of community groups and institutions, as well as formal cooperation with local authorities may play a crucial role in promoting urban agriculture. It should be added that Canada, as one of few countries, developed a National Strategy for

² Association of European Schools of Planning – AESOP.

³ Communauté Métropolitaine de Montréal – CMM.

⁴ Le Plan métropolitain d'aménagement et de développement – PMAD.

⁵ Plans de développement de la zone agricole – PDZA.

Urban Agriculture, which is in force in that country (Canada..., 2016). In France, the general aim of the document of urban strategic development, i.e. the so-called Directional Scheme of Management and Urban Planning (SDAU⁶, 1992-1995) was to maintain the essential balance between built-up areas (including those designed for development) on the one hand and natural, agricultural and forest areas on the other hand. The role of this document was already defined in the French Urban Planning Code dating back to 1987, which stated that "Directional Schemes establish the main directions of land use (...) taking into account the balance to be kept between urban development, agricultural activity, other economic activity and protection of natural areas" (Lyon 2010, 1991). The SDAU promotes compact development, strengthening of the polycentric layout, valorisation of public spaces in district centres, inhibition of urban sprawl in peri-urban municipalities as well as protection of environmental infrastructure, including urban and peri-urban agriculture. Moreover, the need to specify the concept of a food system was recognised, which, following Pillon (2011), was defined as a system of interdependent elements, i.e. entities, services and institutions responsible for food production, processing, distribution, access, consumption and storage. This comprehensive definition of a food system also included waste management and production of materials for agriculture (seeds, fertilizers, pesticides, among other things). The elements of this whole fulfil specific functions, and their interaction should be maintained in balance. It should be also noted that the actions of this system involve various types of resources: natural, economic, material, human and socio-cultural, with external factors also being at play. French cities declare the desire to regain food autonomy. At a time of urban crisis they improve their food strategy in connection with the economic strategy (e.g. the city of Pousse), and implement public agricultural and food policy with territorial coverage at the supra-municipal level (Les villes..., 2015, 2017).

The European Metropolis of Lille (northern France) promotes itself as the first agricultural metropolis in France. It implemented a document called Food Autonomy, which defined land strategy as a new policy of Lille. Agriculture is maintained over the area of 35 ha within the metropolis, with particular support directed to its ecological, environment- and human friendly forms (Lille..., 2017). Similarly, the Metropolis of Montpellier (southern France) pursues, along with 31 associated municipalities, a new public policy, the so-called "agroecological and food" policy.

The French system of spatial planning, which is regarded as a model and addresses the issue of the restitution of agriculture and farmland, is successfully implemented in Lyon (France). An interesting example of the development of urban agricultural policy is the so-called "responsible agriculture" programme for the area of the Grand Parc Miribel Jonage park in the north-eastern part of Lyon, situated on a large island on the Rhone river (Grand..., 2020). The Strategy for Natural and Agricultural Areas developed for that area covers 2200 ha, including 800 ha of forests, 500 ha of agricultural areas, 56 ha of meadows covered by the

⁶ Schéma Directeur d'Aménagement et d'Urbanisme – SDAU.

Nature 2000 programme and 400 ha of water areas. The document set three directions for the Park's protection: to protect environmental diversity, valorise "responsible agriculture" and promote the area of environmental education and recreation as "territorial laboratory". The programme of agriculture in Grand Parc is an example of a new method of policy implementation that consists in improving the abilities to cooperate for achievement of objectives the sense of which is understandable to all.

Grand Parc had a medium-term Directional Plan with supporting documents (Agriculture Chart and Programme for Natural Area Management). The implementation of these documents enabled the initiation of dialogue with farmers, making them responsible partners in the protection of that area, as well as regulation of land use conditions. Before the deadline of the plan's implementation, i.e 2015, the already mentioned Strategy for Natural and Agricultural Areas was created which fits into the Agri-Environmental and Climate Project adopted for the whole territory. The project is designed to improve the professionalism of farmers and help in modification of their activity so that the quality of drinking water reserves and biodiversity could be preserved. The park is treated as a showcase for the metropolis, presenting the model environment and agriculture. This laboratory in the open air builds coherence of many themes by attracting new supporters of the project implementation. It is an area of cooperation between research institutions, universities and users (farmers, among others) and the aim is to take a more "sensitive approach" to the environmental protection through social dialogue. It is also an experiment of ambitious management, which is based on constant search for balance between the Park's various functions. This example of working together to implement a policy is at the same time an illustration of a new creative method for bringing into force plans and strategies.

Apart from the efforts of individual cities, the issues of "agroecological and food public policy" or territorially balanced food systems (a necessary component of the modern concept of sustainable urban development) are also addressed by France Urbaine – an association of maires and councillors of metropolises, agglomerations and large cities. The association set up a working group on "territorial food strategies" to help to develop and promote local projects and initiatives in that area also beyond France, as it initiates wider European reflection. Numerous French cities associated with France Urbaine became signatories of the Milan Urban Food Policy Act. At a European level, they intend to initiate a discussion on the place of cities and urban agriculture within the EU's Common Agricultural Policy and seek to establish urban agriculture regulations at the European scale.

5. Conclusion

The concept of urban sustainable development still presents itself better in theory than in practice. There is a range of awareness, political and economic barriers that hinder actual efforts to implement this idea.

The first step in the evolution of the agricultural policy in the presented metropolitan areas was the mere recognition of urban and peri-urban agriculture as a problem directly connected with a city, and its inclusion in urban planning. The category of open areas, i.e. a perimeter of a green territory that included agricultural areas, was added to "project of metropolis". Thus, agriculture came under the sphere of responsibility of urban policy. All the documents of food strategies place a strong emphasis on preserving agricultural areas without their depletion.

Further redefinition of urban and peri-urban agriculture, along with food production, involved extending and strengthening its role in the aspect of an agglomeration's economic, ecological and social development. In agglomeration projects, agricultural activity was recognised as an economic sector in its own right. Moreover, the problem of the restitution of agriculture was extended to include food issues, i.e. the function of food supply to a city. Also, the importance of combining urban planning, agriculture and food for a city was stressed. Not only was agriculture recognised as a significant element of the landscape structure, but a new emphasis was placed on maintaining agricultural production activity.

The presented models of building urban food strategies show that only planning and a new generation strategic plan of a metropolis is able to balance long-term development objectives and protect natural resources for future generations. Agricultural areas are treated on a par with other forms of land use. Their significant importance due to their multifunctionality and landscape values is stressed. The Canadian or French solutions contribute to the maintenance and development of agriculture, constituting a model for many countries, including Central and Eastern European ones, where agricultural areas are still treated primarily as reserves for urban development.

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THE ROLE OF CORPORATE SOCIAL RESPONSIBILITY IN DEVELOPMENT OF COMMUNICATION WITH EXTERNAL STAKEHOLDERS AND ENVIRONMENTAL PROTECTION – AN EXAMPLE OF A TELECOMMUNICATIONS COMPANY

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Purpose: The concept of CSR is one of the most important topics from the point of view of both scientific research and companies' actions. Although corporate social responsibility seems to be common practice, however in many cases, these are often one-time actions aimed at building firms' image. The paper tries to look at this issue from a perspective of a telecommunications company.

Design/methodology/approach: Secondary sources of information were used as well primary ones, obtained by the means of direct interviews conducted in a company providing telecommunication services, using an independently prepared, unstructured questionnaire as the research tool. The data obtained was analyzed using the inductive-deductive method.

Findings: The CSR initiatives undertaken by the studied company proves that it develops good, long-term relations with its stakeholders such as suppliers and business partners, clients as well as the local government. The corporate social responsibility is incorporated in company's organizational culture and it cannot be treated as one-time, ad-hoc events which is quite common for other companies.

Originality/value: The analyzed company was not previously studied in terms of CSR activities. The paper can be useful for stakeholders, especially the local government as it can see the firm's strong commitment to the development of the social, the economic and the natural environment of the region.

Keywords: CSR, enterprise, external stakeholders, natural environment.

Category of the paper: Case study.

1. Introduction

Intensive development of corporate social responsibility in enterprises had begun in developed countries in the 1960s as a result of the impact of two social movements: the consumer movement and the environmental movement (Sawicki, 2007). The idea of corporate social responsibility encompasses numerous issues that are of interest with relation to many scientific fields, i.e. economics, management, philosophy, and ethics, and thus its various elements have been emphasized in science, depending on the approach used (Smith, Lenssen, 2009). In its the definition of CSR, the World Business Council for Sustainable Development indicates the significance of sustainable economic development as an important factor determining the quality of employees' and local communities' life (Kietliński et al., 2005). Referring to sustainable economic development, the definition adopted in 2011 by the European Commission emphasizes that CSR is a concept according to which economic entities should take into account both the social and the environmental aspects, taking this way responsibility for the impact of their activity on the external environment (Odnowiona strategia ..., 2011).

Corporate social responsibility constitutes an integral part of the operation strategy in many companies both in Poland (Płoszajski, 2015) and worldwide (Asemah et al., 2013), bringing many benefits to the companies themselves as well as to their internal and external stakeholders. These benefits include: improvement of company image, increased employee satisfaction and greater customer loyalty. Mourougan (2015) underlines the fact that enterprises implementing CSR are more valued by investors and financiers, who consider such companies as well-managed entities that care for their value. Bartkowiak (2011), on the other hand, accentuates the fact that CSR is one of the methods used to gain competitive advantage on the market.

One such CSR tool is public awareness campaigns. Social campaign activity is meant to draw attention to a specific social problem, using the marketing experience of a given enterprise (Łukasiewicz-Kamińska, 2011). The decision to create public awareness campaigns must be considered in terms of the company's financial capabilities. Such activity can quite effectively improve a given company's competitive position and reputation. The benefits that social campaigns bring for the community, on the other hand, depend on the topic they address. They can influence economic or social awareness, or draw attention to the education-, the safety- or the health-related issues in local communities. As part of their social campaign activities, companies often come up with ideas for competitions or programs and, offering something in return, encourage the public to look at the social problem addressed creatively. Such activities bring results in the form of increased reach and recognition as well as new potential customers (Leoński, 2016).

2. Research methodology

To implement the topic adopted, subject-related literature was used. Primary sources of information were used as well, obtained by the means of direct interviews conducted in a company providing telecommunication services¹, using an independently prepared, unstructured questionnaire, the so-called list of questions, as the research tool. The data obtained was analyzed using the inductive-deductive method.

3. Research results

The enterprise surveyed provides telecommunication services. It has been operating on the market for over a hundred years. In the last thirty years, it has undergone ownership and organizational transformation. Since December 2013, it has operated as a joint-stock company. Its potential entails good technical structure, which allows provision of a wide range of services, especially mobile and fixed-line telephony and data transmission. Due to the very dynamic changes taking place in telecommunication, in order to maintain its position on the competitive market, it constantly adjusts its activity to the increasing demands of the service recipients. It has, *inter alia*, prepared a special offer for customers who are particularly sensitive to prices, which is distinguishable by its transparent contract terms, low prices and online sale.

Maintenance of the company's strong market position is also fostered by the system of corporate social responsibility that has been implemented for several years. As part of this system, the management board has been developing partner marketing, which consists in the shaping of long-term, good relations with both the employees, *i.e.* internal stakeholders, and the external stakeholders. The latter include individual and institutional service recipients, who deserve special attention, since both the enterprises as well as the local and regional community are inextricably interlinked and, according to, *inter alia*, Olejniczak (2013), constitute the social aspect of the CSR idea. In this respect, the types of the surveyed company's stakeholders are presented in Figure 1.

¹ The permission to publish the research results was conditioned by the company's anonymity.

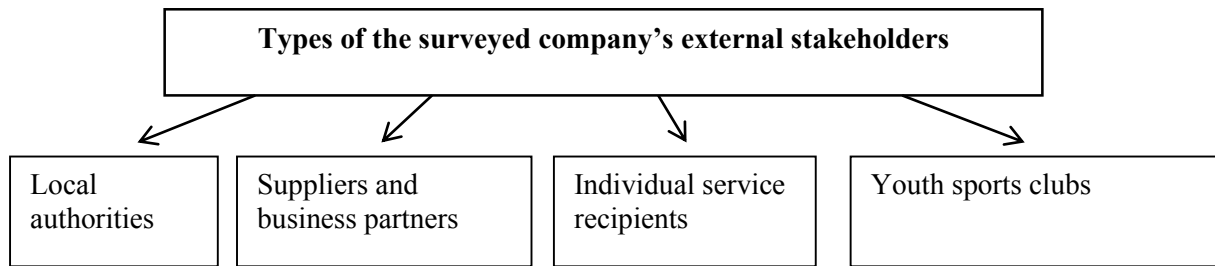


Figure 1. Types of the surveyed telecommunications company's stakeholders. Source: own elaboration based on the empirical study.

The types of the surveyed company's external stakeholders, whom it has developed lasting relationships with by implementing a diversified scope of activities, vary. Its cooperation with the local authorities is aimed at joint problem solving, in terms to the flow of information and improvement of the telecommunication infrastructure. One example here is the construction of a fiber-optic network that provides the voivodeship residents with access to high-speed Internet, with speeds of up to 300Mb/s, as well as to HD quality TV channels and telephony services. The enterprise allocated its own funds for this network implementation, while the local government, a party to the contract, limited the necessary formalities to a minimum and supported the company's promotional activity. The company also participated in the educational activities carried out by the local government, which were meant to inform the residents about the possibility of using the high-speed fiber optic network for work, entertainment and individual interests.

The company's external stakeholders also include suppliers and business partners. Lasting business relationships are established upon long-term contracts with representatives of those companies, which are based on transparent principles of cooperation, providing both sides with stability and development opportunities. The company also runs a periodic supplier evaluation program. The long-term contracts concluded with the suppliers account for over 90% of all the contracts, which favors development of a socially responsible supply chain.

Other external stakeholders are individual clients, who are, inter alia, provided with knowledge through modern forms of education for children, youth and residents, as to strengthen the digital competences of those acquiring knowledge, especially those in smaller towns, as well as to build communities, using the Internet and new technologies. With regard to childhood education, the following programs deserve attention:

- The digital education program dedicated for primary schools and implemented at school common rooms. Its goal is to provide digital literacy to the youngest students. Learning takes place through play, owing to the fact that the program is based on educational games.

- The "sounds of dreams" [PL: "dźwięki marzeń"] program, which aims to support the development of deaf children.
- The "educational island for young patients" ["edukacyjna wyspa dla małych pacjentów"] program, addressed to children staying in hospitals, to make this stay more friendly and, at the same time, to create multimedia spots for learning, play and development of digital competences.
- The program developed for children aged 9 to 12, which is meant to teach the principles of programming and the basics of robotics. Children learn programming in practice and develop skills of logical thinking, teamwork and creativity.
- The "safety here and there" ["bezpiecznie tu i tam"] program, which aims to prepare the youngest children for safe functioning in the virtual world of the Internet.

The company also has been implementing such programs for young people and adults:

- The "join in wisely" ["włącz się z głową"] program encouraging young people to use the Internet and new technologies wisely, as to learn about the country, the world and the cultures of different nations.
- The educational platform that provides access to high-quality education in mathematics, physics, programming, biology and history via the Internet.
- The "virtual museums" ["wirtualne muzea"] program which allows familiarization with museum collections from around the world.
- The "acquittance with passions" ["spotkanie z pasjami"] program developed for social activation of seniors.

Additionally, a corporate volunteering program functions in the telecommunications company surveyed. It entails a group of employees who, by being socially active, act with clients in mind, noticing and respecting their needs, as well as engage in new pro-consumer projects.

It should be underlined that owing to the above-presented programs, the company has contributed to the provision of Internet access for residents, especially in small towns, to the dissemination of new digital competences among local communities, to the acquisition of communication skills and competences that allow residents to deal with everyday matters via the Internet, as well as to the increase of knowledge on cyberspace safety.

The company has also been involved in the promotion of healthy and sustainable child and youth development, by supporting local communities in the Subcarpathia voivodeship. As such, it participates in the national project of sponsoring children and youth sports teams in five disciplines, i.e. football, volleyball, basketball, handball and athletics. Each team has been equipped with good-class sports equipment and training clothes. Moreover, specially developed training programs have been made available via an Internet platform. It should be emphasized that, as indicated by Grzybek (2005), activities aimed at sports and recreation development, including sports club sponsorship, require significant financial outlays, therefore this form of

CSR implementation is most commonly chosen by large companies and targets well-known sports clubs. In the case analyzed, however, such activity benefiting local communities, activating children, youth, their parents, teachers and coaches to jointly act for comprehensive development of sport, is a completely new phenomenon.

While implementing corporate social responsibility with respect to the local and regional community, the surveyed company's management has been paying equal attention to environmental protection.

The scope of the environmental protection activities carried out by the company surveyed as part of CSR is presented in Figure 2.

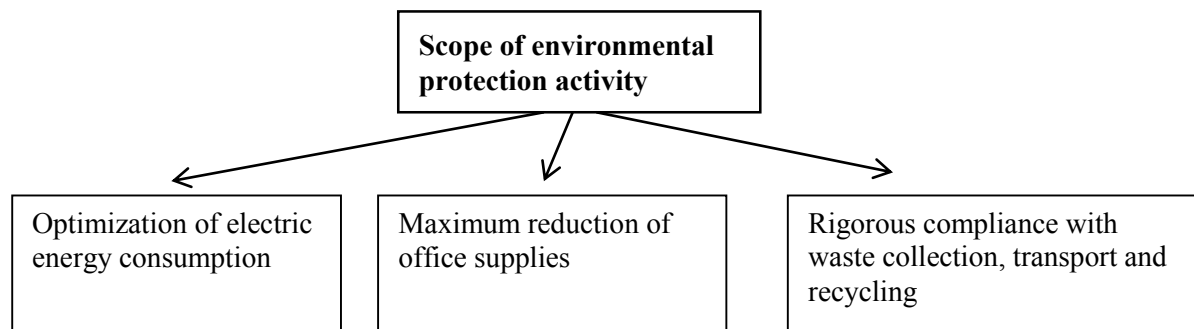


Figure 2. The company's pro-ecological activity. Source: own elaboration based on the empirical study.

As Figure 2 shows, the company's activities aimed at natural environment protection concern three very important areas that are associated with the functioning of the enterprise. While paying attention to the specificity of the industry and the need to expand the telecommunication infrastructure, which is associated with an increase in electricity demand – a factor that is very unfavorable for the environment, the company has been taking steps to optimize its energy consumption. These activities concern, inter alia, the following:

- records and analysis of energy consumption, based on detailed invoice data, and the use of intelligent metering devices, owing to which the amount of the energy consumed can be precisely assessed online, allowing quick reaction when energy consumption is too high;
- development of energy consumption models, broken down into network domains, types of devices, objects determining energy consumption in individual ports;
- development of an energy management model describing the main functions, responsibilities and processes, in terms of savings initiatives, facility management, the energy consumption growth balance resulting from network evolution, as well as verification of energy supplier invoice correctness;
- optimization of the technical network structure;
- replacement of older-generation devices with more modern, energy-saving ones;
- modernization of the cooling systems;
- replacement of traditional and halogen lighting in showrooms with LED lighting;
- insulation of existing buildings, in order to reduce heat loss.

The employees using passenger cars to perform their official tasks take part in specialist eco-driving training courses, in order to reduce fuel consumption costs.

As a way to reduce consumption of office supplies, especially paper, computer applications are used to keep attendance lists, settle business trip expenses and plan vacation time. E-documents are used for contacts with suppliers, which allows placement of electronic placement of orders, confirmation of courier deliveries and invoice archiving.

As a provider of ICT services, the company has faced the problem of vast waste generation, a significant part of which is used mobile phones, which are hazardous waste. The company has therefore developed a program of used ICT equipment buyback and utilization. Owing to the high CSR awareness on the part of the company's management, only companies that take full responsibility for further handling of the waste received, from its collection and transport to recovery or disposal, are selected. These companies are obliged to present documentation regarding individual stages of hazardous waste utilization.

4. Discussion

The above-presented description of the surveyed company's CSR initiatives proves that the company undertakes many activities with respect to its external stakeholders, the aim of which is to develop good long-term relations with its suppliers and business partners, its service recipients, as well as the local government and youth sports clubs.

Prosocial involvement deserves the term used by Buczkowski et al. (2016) – the "license to act" ["licencja na działanie"]. This term is understood as community's acceptance for the activity undertaken by a specific company for the benefit of the local environment, based on mutual relations, which the company surveyed is a positive example of.

The company's cooperation with the local authorities results from the nature of the industry in which it operates. It should be emphasized that these relations have been very successful for many years. It is beneficial for both partners, as the company pays taxes and thus is a source of income for the local government, which in turn tries to build the company's good image. Adamczyk (2009) states that a positive image is a necessary condition for stable long-term company development and operation on the market. Fonfara (1999) and Krzysztofek (2014), on the other hand, believe that a company's good image is one of the most valuable elements constituting the intangible value of any economic entity.

The company's investment in the fiber-optic network has contributed to the development of infrastructure, and thus to the increase in the economic potential of the Subcarpathia voivodeship as well as to the development of information society, which has also been supported by educational activities, the importance of which is underlined, inter alia, by Kluszczyński (2011).

In terms of the company surveyed, the programs developed for and adapted to different client age groups, including deaf children or the children staying in hospitals, deserve to be highlighted, which proves that the company cares about each service recipient and shows humane treatment of all citizens.

The youth sports club sponsorship allows children and young adults to develop their sports passions and, at the same time, teaches them the skills of cooperation and fair competition. These principles are very important in the conduct of every human being, not only in sports but also in professional and social life.

The CSR activities carried out for the benefit of local and regional communities stimulate the resolution of economic, social and environmental problems. The benefits the companies operating in this way enjoy are not immediate (e.g. educational support), but they bring effects in the long run. In this type of activity, the social, environmental and business goals are balanced, as indicated by e.g. Gołaszewska-Koczan (2009).

All the rational environmental-protection undertakings on the part of the entity surveyed should be assessed positively. It turns out that the company's management takes this important issue very seriously, which is crucial for today's and future generations.

5. Conclusions

Implementation of corporate social responsibility oriented at the shaping of positive relations with external stakeholders is very advanced in the company surveyed and applies to every entity which the company has a relationship with.

The range of the activities carried out by the company, including good relations with all stakeholders, is very broad and pertains to the development of infrastructure, education, and environmental protection, which proves its strong commitment to the development of the social, the economic and the natural environment of the Subcarpathia voivodeship.

The multitude of the environmental-protection activities undertaken by the company results in comprehensive application of the corporate social responsibility principles with respect to the natural environment.

The company's implementation of corporate social responsibility constitutes an element of a safe strategy, the role of which is, *inter alia*, to counteract various types of threats that have been emerging along with the dynamic development of the industry in which it operates.

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INNOVATIVENESS AS A RESOURCE FOR THE DEVELOPMENT OF A PERIPHERAL REGION

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Purpose: The main goal of the article is to show the role of innovativeness in the context of the development of a peripheral region, with particular emphasis on the analysis of the perception of selected spheres of endogenous development resources by representatives of the regional innovativeness system representing public administration, research and development institutions and enterprises.

Design/methodology/approach: The article uses both the method of analyzing the literature on the subject and the analysis of the results of own sociological research carried out in the Podkarpackie Province under the research grant.

Findings: The analysis of the results of own empirical research carried out in the article shows that the Podkarpackie Province has a significant endogenous development resource located in the sphere of social awareness and positive attitudes of the surveyed inhabitants towards changes and innovativeness.

Research limitations/implications: Further research on the role of innovativeness in the development of the peripheral region should be focused on in-depth recognition of the innovative personality elements of the inhabitants of the region and their perception of opportunities for using the internal development potential.

Practical implications: The practical implications consist in an attempt to indicate that there is a possibility of a region recovering from the peripheral and marginalized state by using the endogenous development potential of the innovative attitudes and awareness of the regional community.

Social implications: Increasing the scope and level of acceptance of changes and innovative solutions by the regional community, and thus facilitating and accelerating the development and modernization processes in the region.

Originality/value: The value of the article lies in the recognition and analysis of the social dimension of endogenous development resources expressed in the attitudes and innovative awareness of selected categories of inhabitants of the region.

Keywords: Innovativeness, development, peripheral region.

Category of the paper: Research paper.

1. Introduction

Modern socio-economic development is characterized by an increase in the process of territorialisation (Zaucha, and Szlachta, 2015; Nowakowska, 2017, pp. 26-38). On the one hand, dynamic growth clusters are being created, and on the other, there are peripheral regions at risk of marginalization which are taking on development challenges and becoming involved in competitive competition. There are several reasons for territorial disparities in development. This is due, *inter alia*, to the different, in terms of efficiency, capacity of regions to create a favourable climate for the creation and functioning of innovative enterprises and their institutional and scientific research environment. The variation in the pace of the first degree of progress of development processes at regional level is also a consequence of the increasing role of links within the territorial production systems, the size and quality of human and social capital (Tuziak, 2009, p. 87). It is also largely due to the historical development routes of the various regions of the country (Jałowicki et al., 2007, pp. 115-132).

The problem of peripheral and development diversification is linked to the fact that each economic system has greater or lesser regional disparities, including asymmetries in the center-periphery system. It is very important to identify the geographical, organizational and institutional distances between them and the other regions. The geographical distance is analyzed from a physical distance perspective which depends on the existence of natural handicaps and the existence of barriers and on the development of transport and information infrastructure. The organizational distance is defined as the way in which the production is organized, the organizational relation and the degree of similarity of the organizations. The institutional distance concerns recognized and applied models of principles and standards, as well as the existence of forms of collective action, the dissemination of the concept of cooperation, partnership and trust and the capacity to set up informal institutions. In theoretical views which are abstract from the spatial dimension of the phenomenon of peripheral activity, it is indicated that the region's periphery consists of the following elements: low level of development of infrastructure of information society, low human capital skills, weak links within local business networks, low civil society activity, lack of institutional density, poor links between the region and the global environment (Olechnicka, 2004, pp. 54-62).

The Polish regions are characterized by significant differences in the level of socio-economic development. The regions with the highest competitiveness are Mazowieckie Province, Małopolskie Province, Pomorskie Province, Wielkopolskie Province. Their advantage over other regions of the country is due, among other things, to the high efficiency of the productive sector, the high potential of human resources, the relatively well-developed infrastructure, the dynamic growth of agglomerations (Gorzelak, 2007, pp. 14-21). Regions with development problems are the provinces of eastern Poland: Lubelskie Province, Podkarpackie Province, Świętokrzyskie Province, Podlaskie and Warmińsko-Mazurskie

Province. Factors slowing their development include: inefficient employment structure, low productive agriculture, low levels of service and industry development, poor quality of human resources, low urbanization rates, relatively low foreign capital investments.

The Podkarpackie Province, which is an example of the role and significance of endogenous development factors, is one of the regions which seek to reduce development distances in relation to the rest of the country. It is characterized by a considerable dependence of the economy on agriculture, a very low level of human capital, limited territorial accessibility, low level of infrastructure, as well as income of the population and local government units. The region therefore meets the definition criteria applicable to the peripheral regions (Grosse, 2007, p. 7).

The objective of this article is to characterize and analyze the perception of selected spheres of endogenous development resources by representatives of regional actors – public administration, science, business, and expert institutions – creating a regional innovativeness system geared toward dynamic development of the peripheral region. The analyses and characteristics of regional innovativeness determinants refer to the literature of the subject and, in particular, to part of the quality results of the own research carried out under the MNiSzW grant NN 116367637, *Innovativeness in the process of endogenous development of the peripheral region. Social study*. The research project was an attempt to apply social knowledge in the process of promoting of widely understood innovativeness as an endogenous development factor for a region classified as a peripheral area. The aim was to identify the internal possibilities for shaping the nature and direction of the socio-economic development of the region. It enabled to diagnose an informed dimension of innovative development, as reflected in the opinions and attitudes of representatives of the regional the innovativeness system.

2. The role of innovativeness in the endogenous development of the region

The literature highlights the fact that economic development is heavily influenced by values, cultural patterns, social awareness and attitudes (Hryniewicz, 2004; Harrison, and Huntington, 2003). In order to maintain a high dynamic in development, one should shape individuals' innovative awareness, knowledge, qualifications, openness to change, networks of trust-based relationships and reciprocity as essential elements of social capital. The sociologists stress that in development processes involving the creation of modern and flexible forms of organization in every sphere of social life, susceptibility to change and innovativeness is essential, as an important element of a interconnected set of features consisting of modern and innovative personality (Krzysztofek, and Szczepański, 2002, pp. 39-54; Sztompka, 2005, pp. 85-86).

The development opportunities of the peripheral regions are increasingly determined by endogenous socio-cultural factors relating, in particular, to the quality of human and social capital and to the quality and density of cooperation networks and the links between actors forming a regional innovativeness system – enterprises, public administration, scientific bodies, institutions of the business environment (Tuziak, 2013). In this context, it is important to support local and regional business leaders, especially those who innovate (technology, organization) in their businesses, disseminate experience and good practice in the region and demonstrate a strong commitment to partnering with other companies, as well as with research and development and market infrastructure institutions.

Social capital is important for the development of the peripheral regions, which include Podkarpackie Province, by improving their competitiveness and innovativeness. It is a socio-cultural resource that allows networking of cooperative enterprises and regional institutions. The mobilization of social capital resources is a major acceleration of economic development (Woolcock, 1998, pp. 151-208). The peripheral regions, which are lagging behind, tend to be characterized by a shortage of social capital, and lack of cooperation traditions and, above all, trust between entrepreneurs. Trust as an important element of social capital is conducive to cooperation, a civic commitment to public good, the creation of a dense network of associations and regional institutions, and consequently enables economic growth (Putnam, 1995, pp. 258-276). In the peripheral regions, not only the scarcity of social capital, which is the weakness of cooperation between the various actors and the limited number of regional networks, can be a problem. The quality of social capital and, in particular, its inefficiency in generating innovative economic changes (Grosse, 2007, p. 120) may also be a hindrance and barrier to development. In view of the importance of social capital for regional development, the local authorities should play an important role in its building and strengthening. The best way to do this is to implement programs and projects that require the cooperation of the various regional actors. Networking is carried out both on a formal basis, between different institutions and on an informal basis, between individuals. Both types of cooperation play an important role in innovative development. Public authorities should therefore adequately support not only the establishment of institutional and formal procedures for the development of social networks, but also focus the activities of persons and entities having a significant impact on the pace and direction of regional development.

Innovativeness enables dynamic growth and a strong competitive position for cities and regions. Innovativeness is most fully implemented through regional innovativeness networks. Several factors determine the appropriateness of setting up such networks to activate endogenous development resources (Cook, 2007, pp. 12-13). Firstly, interaction is important: in the interactive model of the innovativeness process, both business and science can have a two-way influence on this process: "push" (*push*) and "pull" (*pull*). Small regional companies, as well as users of products, processes and services, can be an increasingly important element of interaction. The second factor is the grouping – experience shows that areas of greatest

economic growth are networks of companies closely cooperating with one another and with state-owned business support agencies. The third important element of regional innovativeness is the creation of networks within which economic coordination takes place. Their forms are neither clearly hierarchical nor market-based, but rather stimulating reciprocity, exchange and trust, are often used by companies in innovative environments. Fourthly, at regional level, all elements of the innovative economy are important – from basic research to market information. Increasing innovativeness through the creation of innovative systems will lead to inter-regional competition and create an opportunity for sustainable and dynamic development.

3. Innovativeness and development from the perspective of representatives of the regional innovativeness system

This part of the article will highlight the issue of regional innovativeness in terms of attitudes and content of awareness of the representatives of institutions and organizations included in the regional innovativeness system. The analysis was based on empirical material obtained through in-depth interviews with business, public authorities, universities, R&D institutions, business environment institutions, including regional development agencies, science and technology parks, technology transfer centers, financial institutions, and expert and opinion leaders representing consulting and advisory bodies and business associations. The research on innovativeness in the context of the development of the Podkarpackie region was carried out, or was mentioned, within the framework of the ministerial research grant entitled ‘Innovativeness in the process of endogenous development of the peripheral region. Social study’. A total of 174 interviews were carried out, including 99 in Rzeszów and 25 in Krosno, Przemyśl and Tarnobrzeg. They were treated as representatives of the elite as the basis for the creation of a regional creative class. Respondents represented areas and sectors requiring high-level qualifications, knowledge and education, and their activity and professional activity involved in finding new solutions and creating new values (Tuziak, 2016, pp. 23-41).

Innovativeness is a phenomenon that can be considered as a sphere of social singularity, because it is a manifestation of innovativeness, indifference and uniqueness, often leading to overtaking established thinking and action patterns. In the analysis of innovativeness attitudes and awareness among regional representatives, the innovativeness system can therefore be applied to cognitive theory of social singularity (Gumuła, 2008). This model has several levels. The first one is the level of mental resources, i.e. the sphere of awareness and innovativeness attitudes. The second level – regulatory resources – is about an attitude to novelties and innovative changes and ability and need to recognize them as values, as well as principles and rules that foster innovativeness and entrepreneurship. The third level concerns the interaction within the network of relations and links between entities forming the regional innovativeness

system. The fourth level refers to the social interest, which in the case of Podkarpackie region, could lead to the need to speed up the process of exiting the region from a peripheral state and marginalization.

Due to the limited framework of the article, selected elements of mental resources, i.e. included in the sphere of awareness and innovativeness attitudes, were identified. Such resources were considered essential for the launch and exploitation of the internal development potential. The focus was therefore on the identification by the examined characteristics of modern and innovative personality and on the assessment of the endogenous development potential of the region.

4. Perception of the elements of modern and innovative personality

In the literature on the subject there are characteristics and analyses of personality traits conducive to modern development and creative, innovative activity (Inkeles, 1976; Krzysztofek, and Szczepanski, 2002; Sztompka, 2005). Individuals with a modern personality are characterised by openness to change in the external environment as well as to interact with other people and are ready for new experiences and innovativeness in different areas of life. They have their own opinions on many social issues, and at the same time they recognize the right of others to express different views, accepting and valuing their diversity. Innovative personality promotes a more present and future-oriented personality than the past-oriented one. It is dominated by optimistic elements, including the belief that human efforts are effective, that social life is regular and predictable in order to plan, anticipate and formulate future goals. In the hierarchy of values of individuals with modern personality, the high position is education and education in a broad sense, as well as justice and respect for the dignity of the second person (Sztompka, 2005, pp. 85-86).

The need for achievements is characteristic of modern personality. The social dimension of this need increases individual competitiveness, non-conformism and innovativeness and thus contributes to growth and growth. The high level of need to achieve and strive for success is conducive to risk-taking and to developing an attitude of acceptance of innovativeness (Krzysztofek, and Szczepański, 2002, p. 44).

An innovative society is created by creative, active, achievement-oriented individuals, characterized by knowledge, imagination and realism, a sense of autonomy, independence and integrity. In an attempt to determine to what extent the so-called "human factor" sets the dynamics of creative transformation of the regional Community, respondents were asked to provide the mental characteristics of the population of Podkarpackie Province (Tuziak, 2013, pp. 298-301). The evaluations and opinions of the respondents can be summarized in a diagram, the basis for describing the "mental profile" of the inhabitants of Podkarpackie Province is the

intensity of the features on the continuum: innovativeness – conservatism. The majority of respondents stressed that the people of Podkarpackie Province were open to change and novelties, entrepreneurship, flexibility in thinking and acting. This perception of the dominant characteristics of the Podkarpackie Province population has been reflected in the characteristics of the respondents:

People here are clearly entrepreneurial and open to novelties, for instance because these people who were once conservative for years, which was due to a lack of living conditions, emigrated to the West (...). Now you only need to look at the Podkarpackie Province (...) village, how much it has changed, what beautiful houses there are. We can be a showpiece for regions (...). This shows that these people are entrepreneurial, resourceful and somehow manage one their own. Absolutely (KAP 18).

The inhabitants of Podkarpackie region are certainly open if, for example, we look through the prism of creating companies and companies that go bankrupt. Because it is interrelated. However, lots of these companies have been set up. They are trying to do something. Some become successful, others fail. The achievements of some of them here are very serious, because they have built private companies that are starting to compete on the European market (RIOB 23).

Among the respondents there was some ambivalence in the perception of the characteristics of the inhabitants of Podkarpackie Province, as demonstrated by the combination of traditional and conservative elements, with an emphasis on the characteristics of entrepreneurship and openness to change. It seems that this perspective goes beyond a schematic thinking in opposition terms: conservatism – innovativeness and shows the latter in a slightly different light. In the awareness of the respondents, these seemingly contradictory attitudes were combined into a harmonious whole:

I think that the people of Podkarpackie Province are entrepreneurial, but in terms of political views or social attitudes, it can be said that it is a more traditional, more conservative society (...). At the same time, the residents are also entrepreneurial, (...) for example in the economic sphere, in the field of business, while maintaining traditional views and attitudes, e.g. in the family (...) (RN69).

In part, they are [inhabitants of Podkarpackie Province] modern and entrepreneurial, willing to take even a certain risk, so I think. And, in some way they are conservative and it's probably where it stems from. Entrepreneurship (...) has some economic potential (...), and young people are certainly more open to such changes (...) (RN35).

A number of respondents expressed moderately negative opinions on the characteristics and attitudes of the inhabitants of the region, their attitude toward entrepreneurship, innovative change and innovativeness. It was stressed that conservatism and ossification are often linked to low levels of education:

I believe that this is a society which, through low educational level, conservatism, by the fact that there are also strong family ties, has limited development capacity, but on the other hand, it is also potential that can be used to develop this society, that is to say, building a more modern society (...) (KOIB 18).

An analysis of the attitudes, values and beliefs examined shows that they have developed the characteristics of modern personality. Most have shown willingness to experience new things, openness to innovativeness and change. They expressed their conviction that creativity, appreciation and acceptance of originality and novelty are important in their lives. According to the majority of people surveyed, the attitude of man to the world should be active and curious. Human beings should learn about the truth in the world, so that, as far as possible, they can influence and control social phenomena. The high openness of the respondents to the changes was accompanied by confidence in self-steering of the individuals and the importance of the future.

5. Perception of the region's internal development potential

In order to develop regional innovativeness, it is important to be able to identify and then use endogenous resources and development opportunities. This is the basis for creating a vision for the future. The belief that human activities and creative activity can strategically plan and shape the future is characteristic of an active and innovative society. The optimism and hope of, inter alia, the positive assessment of intra-regional development resources were characteristic of the opinions and assessments of the regional innovativeness system surveyed (Tuziak, 2016, pp. 36-40). Regional human capital resources were considered one of the most important internal development factors. An illustration of this perception of development resources is as follows:

Above all, people, in my opinion, are here the number one resource (...), and it was not so recent that we had people in the WSK Rzeszów who were able to build aircraft, build high-class aircraft engines. Today, this is changing because there are components for the F16 engine, but above all we have this human potential, high-class professionals, who can do literally everything. For centuries, Podkarpackie region has in principle been rich in human resources. (...) this shows the educational success we have achieved in Podkarpackie region. Due to educational issues, a certain level of professional qualifications is very good. As a result, I think this is our main strength. People and people again (RIOB 16).

The region's potential for demographic growth was recognized as an important endogenous resource in the form of a young and well-educated society:

A very young society is a huge asset. Of what I remember, 50% of the youth population in the region is already studying today. Even in the old times this was only an eight-percent figure. (...) well-educated staff at Podkarpackie universities are also an asset. (...) Young society, well-educated staff are the assets and opportunities for development in the region (RAP20).

While recognizing human resources as an important development asset in the region, respondents stressed the negative trend of emigration of skilled and educated people. The awareness that human resources are a valuable and declining capital of the region is reflected in the assessments and opinions expressed by respondents:

Looking at young people, unfortunately, it still seems to me that there are not enough jobs for young people and, nevertheless, they are trying to escape from Podkarpackie region (RBR8).

One can see that young people, I think they have gone to England, Ireland or even to the United States. Others, you know, they learn, there are universities, even on a very good level, I sometimes have a contact with the University of Technology, I know that the level is really good. But even as they learn, they receive this diploma, they must seek work in Krakow, Warsaw, etc. (RP15).

According to the respondents, the areas in which significant and still underutilized internal development factors are located are industry and regional raw material resources:

The pharmaceutical, it and food industries are one of the highly developed sectors of the economy. Despite some regression in recent years, the aviation industry is still characteristic of the region. In the southern, more mountainous part, a number of mineral resources are extracted, including: sandstones, limestones, gypsum, ceramic clay, sand, including glasshouse sand and gravel. There are also numerous intakes of mineral water in the south, distributed throughout the country. (...) the main fossil raw materials are sulfur, oil and natural gas. Renewable energy sources, in particular thermal sources, are a great opportunity. (...) The mere existence of investments related to the extraction and processing of raw materials, inter alia, through the creation of new jobs, will contribute to the overall development of the region (TAP12).

Better use of the economic potential of the region was identified by respondents as their main development opportunity. In this context, awareness of the risks associated with the basis of the regional economy in one dominant sector has become apparent:

The economic potential of the province is significant, that is to say, a very good cluster of Aviation Valley. In the region there is close to 90% of the aviation industry, including all national production (...) this is also a huge asset. But we must remember to diversify this. We cannot just be so heavily dependent on the aviation industry, because if the turbulence we have experienced over the last two years was to happen, it would have a very negative impact on the socio-economic situation of the Podkarpackie Province. We need to attract investors in

various sectors: automotive, IT, chemical industry. I think there are many industries in which development opportunities are due to the fact that we are very [ecologically] pure province. We need to invest in renewable energy sources, and that is also a great potential. We also have a lot of opportunities to use geothermal waters (...), but I do not know why this sector is not developing (RIOB 72).

Respondents highlighted the high growth potential of the region's environmental value. They often stressed that the development opportunity of Podkarpackie is tourism and the development of related industries using environmental assets, which are clean:

They are natural assets, in the form of Bieszczady and other areas (...), which in future are this expected driver of development (...), if it were to build a solid [tourist] infrastructure, then perhaps Europe would have been dragging to Poland, but it still needs time and money. An asset is a natural location, (...) ecology, because we can enjoy relatively clean air, clean water, uncontaminated with soil, and that is something that can be used in the future (...). Let us follow an example of countries such as Germany and France. They don't have forests because they cut them off a long time ago. We have, let us keep it, let us protect it (...) today in the communication sense we are far behind Europe, but it may change, and sometime we will say: please visit Bieszczady, because there is a natural spruce forest, a beech forest, others no longer have it. This is some chance. As regards environmental asset, I think that this is a matter that we cannot overestimate (...). In the European Union (...) there are no such pearls. We have an asset that we can use (KAP18).

Investment in tourism services, tourism infrastructure and organic food production is, according to the respondents, very beneficial and desirable in terms of regional development. Developing and modernizing the accommodation and catering base, extending the scope and quality of tourism offers is a development strategy for modernizing existing endogenous regional resources. Some respondents preferred this development path. Many realized, however, that a new endogenous resource for the region should be built by diversifying existing activities. This is illustrated by the following statement:

In my opinion, Podkarpackie region, in terms of development resources and opportunities, can mainly generate added value in the form of tourism products, because it has very great tourist value. But I think that is not enough. This cannot be the only thing that Podkarpackie region can show off. Podkarpackie region innovativeness -oriented, at least Rzeszów, Podkarpackie capital, a city of innovativeness. There is also a chance here. Investments which the economic zones of the city and the region can attract can be a driver of development (RN38).

Some respondents to the development opportunities of the region were looking at its border location:

The opportunity for Podkarpackie region is that it is indeed the eastern border of the European Union. At the same time, it is a considerable problem, because Western investors will not want to appear here, but perhaps once Ukraine is aspiring to become a member of the

European Community in a more obvious way, perhaps this region will become a channel through which trade will take place for the benefit of the region (PN10).

Responders linked the internal potential of Podkarpackie region both with human capital resources and with the development of certain industrial sectors, notably the aerospace, it, chemical and food industries (geared toward organic food production). Development opportunities have also been seen in the tourism industry, cross-border cooperation and better use of raw materials. In the opinions of the respondents, the most development potential is used in high-tech industries, i.e. aerospace, it and chemical industries.

6. Summary

Analysis of the attitudes and opinions of representatives of the regional innovativeness system – entrepreneurs, representatives of science, public administration and institutions of the business environment – which form the seeds of the creative class of the region shows that Podkarpackie region has significant endogenous resources. Their effective use improves regional innovativeness and competitiveness. They are primarily located at the social level, in terms of values, attitudes, trust and networks of relations, and of awareness of entrepreneurship and openness to change and innovativeness. The use of mental, normative, interactive resources in combination with the development of innovative and modern personality features is the basis for the regional Community's interest in overcoming development delays and becoming increasingly better in inter-regional competition.

The use of a regional resource of development factors to create a competitive and innovative economy does not necessarily mean a radical break with the past. It may, or should, refer to existing development resources and traditions in the sphere of social and economic activity. An analysis of the attitudes and views of the representatives of the institutions and organizations forming the regional innovativeness system has emerged as a model of regional development, in which two areas of action can be distinguished. The first area involves the innovative development of an already existing resource of development factors linked to traditional regional economic activities. The second sphere is to build a new resource for the endogenous development of the region by supporting high-tech industries – mainly aerospace, electro-mechanical and it. In order to implement the vision for innovative development of the region, its scientific and research base should be strengthened, cooperation between business and science should be developed. It is also important to improve the efficiency of actions taken by the regional authorities and develop the infrastructure of the business environment. The emigration of educated and active inhabitants of the region must also be prevented, as the outflow of human capital poses a serious risk to the process of building a new regional endogenous resource.

In the Podkarpackie region, the essential elements of an innovativeness environment which is a whole and which is reflected in specific pro-development attitudes and activities can be identified. A network of regional entities has been developed and strengthened, including public authorities, enterprises, research and research institutions, and the business environment. The innovative environment in the region consists of both tangible elements – enterprises and progressively developed and modernized technical and intangible infrastructure – in terms of knowledge resources, social capital, values, standards, rules and behavioural patterns. The cooperation of regional entities in the innovativeness system makes it possible to make better use of common endogenous development resources.

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SOCIAL MEDIA IN THE COMMUNICATION BETWEEN THE CITIES OF THE ŁÓDŹ VOIVODESHIP AND STAKEHOLDERS DURING THE COVID-19 PANDEMIC

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Purpose: The aim of this article is to present the basic values of social media in the communication between local government units during the Covid-19 pandemic on the example of the cities in the Łódź voivodeship.

Design/methodology/approach: The research carried out consisted in analyzing the contents of official websites run by the local governments of individual cities of the Łódź Voivodeship in order to check how information about the social networks used (plugin locations) is made available. The active profiles on these websites were reviewed in order to diagnose what content is published. The study was conducted in September 2020. The results were compared to a similar study carried out a year earlier.

Findings: The study has shown that out of 44 analyzed cities in the Łódź Voivodeship, 40 use at least one of the social networking sites. Most often, it is Facebook – 40 cities have their own profile, then YouTube – 19, Instagram and Twitter – 7 each. Nine cities have 3 official profiles on various social networks simultaneously, and another 15 cities – 2. No profiles on social networks were found for 5 cities. With regard to the duration of the Covid-19 pandemic, all cities that have actively used social media, have shared content related to the situation mainly through Facebook.

Research limitations/implications: The study did not take into account social networks that were less popular at the time of writing the article (e.g. TikTok, GoldenLine, Pinterest). The objectives of the communication activities of individual cities are unknown. This can be part of further research through in-depth interviews with those promoting their respective cities. It is also possible to extend the research to cities from other voivodeships.

Practical implications: Based on the author's audit of the communication activity of the cities in the Łódź Voivodeship on social networks, this article suggests that the use of social media is an appropriate tactic in city communication, both in terms of promotion and communication in crisis conditions, due to the participatory, interactive, open, and transparent nature of social media.

Originality/value: The publication presents the results of research carried out on the basis of the author's audit of the activity of the cities of the Łódź voivodeship in the social media.

Keywords: social media, city marketing, city promotion, marketing communication.

Category of the paper: Research paper.

1. Introduction

Social groups have been known for a long time, but it was only the virtual space and available internet applications that allowed for their flourishing and application for social, political, and business purposes. Thus, related social groups using social networking sites as organizational and communication platforms have become social networks (Papińska-Kacperek, and Polańska, 2016). The constantly improved ICT infrastructure (Information and Communication Technologies) and the increasing use of technology have changed the method of modern communication in the interpersonal and, consequently, also commercial dimension. Public administration could not ignore new solutions that have improved the work of commercial institutions for years. Websites such as Facebook and YouTube have become popular in the everyday lives of citizens, as well as cities (as local government units) in contact with residents via the internet. A developed ICT infrastructure, as well as high internet penetration in society, are prerequisites for ensuring that a large number of citizens are able to use social media and other communication channels on the internet. Both of these factors can be found in the concept of Informational World Cities (Stock, 2011; Mainka, Khveshchanka, and Stocka, 2011). Informational cities consist of two spaces: the space of places and the space of flows. The space of places (i.e. buildings, streets) is dominated by the space of flows (e.g. money, power, information). Such cities are the metropolises of the 21st century, which are a continuation of Manuel Castells' concept of "Informational Cities" (Castells, 1989). A "World City" is defined by the degree of its "cityness" (Friedmann, 1995; Taylor, 2004; Sassen, 2001), where a dense population is not necessarily a factor that determines whether a city is informational. However, the ICT infrastructure should be developed so that cities can meet the needs of a space typical of the informational city. There are also other terms related to the development of information and communication technologies in relation to cities, such as the digital city (Yigitcanlar, and Han, 2010), smart city (Shapiro, 2006; Hollands, 2008; Jonek-Kowalska, and Wolniak, 2019), knowledge city (Ergazakis, Metaxiotis, and Psarras, 2004) or creative city (Landry, 2005; Florida, 2005).

Therefore, the use of social media when connecting with the environment becomes an important element of the cities' communication strategy. The city's communication, mainly in relation to promotional aspects, has an integrating, stimulating, and competitive function. The integrating function relates to the local community and is aimed at strengthening ties between the people of a given region (during a pandemic, joint actions to overcome the crisis). The stimulating function serves to increase the degree of identification with the examined territory. The last function concerns competition for external funds, investors, tourists, etc. (in the face of the pandemic, presenting oneself as a safe area, where all safety rules are followed). Skillful management of profiles on social networking sites can contribute to the creation of a specific community of residents acting in the name of the common good.

In addition, it is an opportunity to inform residents non-invasively about the activities of local authorities, which is a valuable source of information and another element for building the informational society (Koszembar-Wiklik, 2013; Woźniakowski, 2015). Therefore, the aim of this article is to present the basic values of social media in the communication of local government units during the Covid-19 pandemic on the example of the cities of the Łódź Voivodeship.

2. The essence of social media in cities' communication

A social networking site can be defined as a site targeted at a specific social group or people with similar interests. These websites allow their users to interfere with their content and character quite significantly (Rzepecki, and Hankus-Matuszek, 2009). What is their strength is the fact that the people visiting their profiles are not fully aware of the fact that behind the eye-pleasing graphics and catchy texts, under which they click the “Like” button, stands (or at least, should stand) a carefully arranged and meticulously thought-out action plan, which considers the opportunities, threats, and potential benefits that each message brings, that is – a network of deliberately selected facts and conclusions (Woźniakowski, 2015). The skillful use of social networking sites in marketing communication may result in the fact that by sending messages, an organization – a city – can build lasting relationships with the recipients – residents (or other stakeholders, e.g. tourists or investors), which will not stop with the campaign (Rak, 2011). This means that a well-created, credible message will be received positively by the environment, and will also be passed on by the recipients. Moreover, informal communication between recipients turns out to be much more effective than conducting standard promotional activities (Brunk, 2010).

Looking at the communication of cities via social networks, three styles of dialogue with stakeholders can be defined. They were named metaphorically, with the emphasis on their most important features: “advertising post,” “hotline,” and “discussion club” (Annusewicz, 2019). The first style, “advertising post”, is the least participatory form of dialogue. It is characterized by focusing on the implementation of the informational function of the conducted communication and is carried out in the formula of one-way communication, focused on broadcasting and not interested in feedback. The characteristic features of this style are (Annusewicz, 2019):

- a small number of followed accounts of other users, dominated by local government institutions, local politicians, other local government units, and public administration entities;
- no interaction with other users;

- sharing and liking only the posts by other local government entities, alternatively, media representatives;
- publishing posts of an informative nature only.

The second style, “hotline,” is characterized by:

- a relatively large number of followed accounts, although these mainly include, apart from the institutions subordinate to the city, local journalists, activists, and politicians;
- reactive interactions, responding to comments that explicitly mention the username;
- publishing posts mostly of an informative nature.

The last of the communication styles – the most intense and participatory in terms of the essence of communication – is the format metaphorically called a “discussion club”. It is characterized by:

- a large number of followed accounts, a significant group of which are residents, persons identifying with the city/municipality;
- proactive (and reactive) interactions consisting in joining the discussions held on a given social networking site, not only when they somehow concern the city, but also when they go beyond the subject of a given city;
- a large number of likes and shares of posts by individuals who are not widely known users of a given website;
- the content of published posts is engaging;
- broad reactions to comments.

3. Social media used by the cities of the Łódź region

The research carried out consisted in analyzing the contents of official websites run by the local governments of individual cities of the Łódź Voivodeship in terms of checking how information about the social networking sites used (plugin locations) and the profiles are communicated in these media in order to see what is published and how. In the absence of a link on the website to the most popular social networking site, Facebook, such a profile was searched using the internal search engine on the portal. The study was carried out in two stages: in October 2019 and in 2020. This allowed for observing the changes in the way of communication via social networks caused by the outbreak of the Covid-19 pandemic. Particular attention was paid to what and how was communicated on the city profiles in the pre-pandemic period, at the time of its announcement (March 2020), and in the period after lifting some of the restrictions (from May 2020). It also indicates the percentage changes with regard to the basic information about the profiles, such as the number of users following a given profile over a year.

The analysis showed that 40 out of 44 cities in the Łódź Voivodeship use at least one social networking site, compared to 37 a year earlier. Most often it is Facebook – 40 cities have their profile, then YouTube – 19, Instagram and Twitter – 7 each. Nine cities have simultaneously 3 official profiles on different websites, another 15 – 2. Tables 1-4 show which cities have their profiles on individual websites with the number of followers and/or posts and/or views during the same period of 2019 and 2020. In the case of 4 cities, no profiles have been found in the analyzed social networks.

Table 1.

Facebook in the communication of the cities of the Łódź Voivodeship – comparison of basic information – as of October 2019 and 2020

No.	City	The number of likes 2019	The number of likes 2020	Difference	Number of followers 2019	Number of followers 2020	Difference
1	Aleksandrów Łódzki	9202	10659	16%	9450	10990	14%
2	Bełchatów	13954	15181	9%	14333	15674	9%
3	Biała Rawska	-	-	-	-	-	-
4	Błaszki	0	1069	-	-	1117	-
5	Brzeziny	3260	3753	15%	3405	4009	15%
6	Drzewica	2072	2598	25%	2136	2705	21%
7	Działoszyn	-	-	-	-	-	-
8	Głowno	4378	5461	25%	4524	5702	21%
9	Kamieńsk	32	73	128%	32	75	57%
10	Koluszki	4480	5642	26%	4631	5868	21%
11	Konstantynów Łódzki	8700	9808	13%	8879	10061	12%
12	Krośniewice	975	1255	29%	995	1301	24%
13	Kutno	12462	13160	6%	12636	13447	6%
14	Łask	2626	3072	17%	2700	3184	15%
15	Łęczyca	2870	3194	11%	2922	3270	11%
16	Łowicz	10851	11414	5%	10983	11597	5%
17	Łódź	341049	359894	6%	344261	368328	7%
18	Opoczno	3811	4459	17%	3902	4642	16%
19	Ozorków	-	2242	-	-	2313	-
20	Pabianice	2459	2757	12%	2554	2906	12%
21	Pajęczno	-	1241	-	-	1307	-
22	Piotrków Trybunalski	8154	8680	6%	8386	8971	7%
23	Poddębice	553	817	48%	571	860	34%
24	Przedbórz	-	-	-	-	-	-
25	Radomsko	4580	5199	14%	4729	5413	13%
26	Rawa Mazowiecka	3328	3975	19%	3469	4173	17%
27	Rzgów	-	1141	-	-	1195	-
28	Sieradz	4399	5683	29%	4493	5907	24%
29	Skierniewice	15420	16748	9%	15670	17173	9%
30	Stryków	1824	2702	48%	1914	2876	33%
31	Sulejów	2354	3305	40%	2481	3475	29%
32	Szadek	218	533	144%	229	556	59%
33	Tomaszów Mazowiecki	11074	12876	16%	11277	13288	15%
34	Tuszyn	-	-	-	-	-	-
35	Uniejów	5527	6155	11%	5672	6354	11%
36	Warta	1673	2881	72%	1689	2965	43%
37	Wieluń	11107	11888	7%	11189	12110	8%

Cont. table 1.

38	Wieruszów	3388	4598	36%	3483	4768	27%
39	Wolbórz	1675	1869	12%	1717	1928	11%
40	Zduńska Wola	5740	6165	7%	5830	6311	8%
41	Zelów	1778	2417	36%	1842	2538	27%
42	Zgierz	11134	12627	13%	11535	13219	13%
43	Złoczew	4324	4923	14%	4372	5021	13%
44	Żychlin	3672	3899	6%	3652	3944	7%
Total (number of profiles) 2020		40					

Source: own research.

Table 2.

Youtube in the communication of the cities of the Łódź Voivodeship – a comparison of basic information – as of October 2019 and 2020

No.	City	Number of views of the most popular video of 2019	Number of views of the most popular video of 2020	Channel subscriptions in 2019	Channel subscriptions in 2020	Difference
1	Aleksandrów Łódzki	126984	13154	671	896	34%
2	Bełchatów	255605	273325	644	693	8%
11	Konstantynów Łódzki	1037	-	24	-	-100%
15	Łęczyca	10016	10096	65	70	8%
18	Opoczno	10833	12864	451	695	54%
19	Ozorków	9288	9769	545	792	45%
22	Piotrków Trybunalski	-	567398	-	3750	-
25	Radomsko	18066	19735	138	185	34%
29	Skierniewice	6218	16823	287	461	61%
30	Stryków	7048	7437	255	305	20%
33	Tomaszów Mazowiecki	51174	79259	387	516	33%
35	Uniejów	761	11506	26	28	8%
36	Warta	1589	1958	21	33	57%
37	Wieluń	38157	44332	136	149	10%
38	Wieruszów	2892	9051	47	72	53%
39	Wolbórz	8588	9852	20	24	20%
40	Zduńska Wola	331	107565	80	283	254%
41	Zelów	2083	2673	65	105	62%
42	Zgierz	17564	19399	238	285	20%
44	Żychlin	3764	3866	46	61	33%
Total (number of profiles) 2020		19				

Source: own research.

Table 3.

Instagram in the communication of the cities of the Łódź Voivodeship – a comparison of basic information – as of October 2019 and 2020

No.	City	Number of posts in 2019	Number of posts in 2020	Difference	Number of followers 2019	Number of followers 2020	Difference
11	Konstantynów Łódzki	150	1	-99%	900	305	-66%
17	Łódź	3596	4782	33%	62800	78700	25%
28	Sieradz	62	94	52%	481	675	40%
29	Skierniewice	505	773	53%	2444	3185	30%
37	Wieluń	73	77	5%	2658	2813	6%
38	Wieruszów	72	79	10%	266	498	87%
43	Złoczew	259	259	0%	500	512	2%
Total (number of profiles) 2020		7					

Source: own research.

Table 4.

Twitter in the communication of the cities of the Łódź Voivodeship – a comparison of basic information – as of October 2019 and 2020

No.	City	Number of tweets 2019	Number of tweets 2020	Difference	Number of followers 2019	Number of followers 2020	Difference
10	Koluszki	22	22	0%	58	62	7%
11	Konstantynów Łódzki	-	13	-	-	17	-
17	Łódź	4228	5331	26%	5945	8060	36%
25	Radomsko	2029	2029	0%	634	698	10%
33	Tomaszów Mazowiecki	137	142	4%	170	220	29%
36	Warta	1	1	0%	1	1	0%
40	Zduńska Wola	359	412	15%	136	161	18%
Total (number of profiles) 2020		7					

Source: own research.

Most of the Facebook profiles are up-to-date, and the numbers of followers suggest that an actively run fan-page in communication between the office and the resident has great potential. In many cases, more posts are added daily, or even several times a day. They mostly concern current events in the city and contain numerous photos or videos. The posts take on a different nature in the analyzed period between October 2019 and October 2020. There are 3 stages in communication: the first, before the pandemic; the second, when it broke out and the time of the so-called first lockdown in the period March–April 2020; and the third one, after lifting the restrictions – from May 2020. In the first stage, all published posts can be grouped according to the following categories (Woźniakowski, 2020):

- for residents (health/social assistance, temporary traffic difficulties, civic budget, reports from events, education);
- free time (cultural and sports events, openings of new restaurants, presentations of places, “behind the scenes” of urban institutions, e.g. showing the work of a tram depot, contests, memes);
- tourism (tourist attractions, history of places – photos and graphics “then and now,” festivals);
- investments/renovations/business (public and commercial, new jobs, fairs and conferences).

In the second stage, the published posts took on an official, formal character and concerned only epidemic issues, such as:

- statistics – the number of infected people/number of deaths as a result of a Covid-19 infection, broken down by: the entire country/voivodeship /municipality;
- rules of safety/preventing the spread of the virus;
- information on restrictions introduced by central authorities.

In the third stage, some cities still published mostly formal posts, referring to official government announcements, as in the earlier stage. On the other hand, the second group returned to the original form of communication via Facebook, thus, using generally accepted rules regarding the form of communication (less formal, cutting the distance from the recipient), while still adding posts related to the current epidemic situation,

With regard to the second analyzed website, YouTube, the number of subscribers to each of the channels – profiles is significantly lower than on Facebook. However, this is not a cause for concern for the cities who run the accounts, as in the case of this website, the number of views of individual videos is more important than the number of regular subscribers.

A channel on YouTube is often treated as a kind of Internet TV (e.g. Bełchatów TV, TV Ozorków) or a regional news service (e.g. “Zgierska Przestrzeń,” “Tydzień Reporterów,” TV Aleksandrów Łódzki). In some cases, the channel mainly reports the sessions of the city council or its subordinate committees (e.g. Żelów, Wieruszów, Stryków).

One year after the previous survey, the biggest problem of local government channels on YouTube is the randomness of published videos and the small number of videos, as well as the lack of new posts. Since the outbreak of the epidemic, only a few posts on YouTube channels have been devoted to this topic. Especially during the summer, videos expressing thanks to the various professional groups involved in fighting the epidemic began to appear.

In the third analyzed social network, Instagram, on 2 profiles – Konstantynów Łódzki and Żłoczew’s – the activity ceased in February and May 2019, respectively. In the case of the profiles of Sieradz, Wieluń and Wieruszów, new posts appear quite rarely (intervals of several days or even several weeks). In the case of Instagram, the problem for cities is the delivery of relevant content. A specific feature of the website is the visual content, mainly photos, hence

the publications should have an aesthetic value, or at least, involve professional photo sessions. As a consequence, there is no clearly defined purpose of having an Instagram account. Skierniewice's Instagram profile is dominated by graphics related to cultural and entertainment events, scenery shots, as well as graphics with messages on the state of the epidemic. Compared to this, the profile of Łódź stands out, as it is the only one that is actively run, and the posts (all with the hashtag #kochamlodz) fit into the nature of the website. The vast majority of posts refer to the presentation of various places in the city, often in an unusual way, thus, expressing quite symbolically the "spirit" of the city, which may encourage both residents and tourists to visit the presented places. With regard to the state of the epidemic, few posts are published and refer to the obligation to cover your nose and mouth, but they are consistent with other graphics and have a decidedly artistic character, e.g. a photo of a mural with the face of Arthur Rubinstein wearing a protective mask.

In the case of the last analyzed website, Twitter, 6 identified city profiles are occasionally updated (Zduńska Wola, Konstantynów Łódzki, Tomaszów Mazowiecki) or its activity has ceased (Koluszki, Radomsko, Warta). The only exception is the profile of Łódź, which is updated on a regular basis, sometimes several tweets are added a day. Most of them relate to current events in the city, although some encourage people to take up activity (including searching for more detailed news) on other websites, mainly on Facebook. Concept-wise, the tweets fit into the nature of the website, which was created to publish short messages that refer the reader to the full content published on other websites.

Compared to the analogous analysis of the use of social networking sites by cities, carried out in 2019, it should be noted that the errors that appeared in these communication channels have not been eliminated. The first oversight is often the wrong placement of social networking plugins in the structure of the official website run by the city hall. They should be located in a visible place, preferably in the top bar of the page, or in the bottom menu or page footer. However, it still happens that they are in an inconspicuous place in the structure of the website, that plugins for different profiles are in different places on the website, or they are not present at all, even though the profile exists. Additionally, clicking on the plugin should open the profile on the social network in a new browser tab, and not replace the currently displayed content.

The second mistake is keeping inactive profiles. Sometimes, despite placing the plugin for a social networking site in a visible place on the page, after redirection to the profile, outdated information or no information is shown. In the absence of new content, it makes no sense to have a profile on a social network. It contradicts the basic idea of their functioning, and for a viewer, it may give the impression that nothing worth showing is happening in a given city.

Another problem is the lack of consistency in the message carried out through social networking sites. By adopting a coherent communication strategy with the use of profiles on individual websites, one can achieve a synergy effect, conduct cross-actions, e.g. by encouraging Facebook users to follow an Instagram account, where a competition for

residents will be announced, etc. Sometimes it appears that random contents are published and the posts feel stilted.

The last, most common mistake (although the above-mentioned ones do not exhaust the topic) is too many profiles in a situation where there is no clear communication strategy using social media. In this case, the principle that less is more is recommended. For example, on the Opoczno website, one can find 3 plugins for 3 different city profiles on Facebook. The first is “Opoczno as the capital of the oberek,” the second is associated with the Ceramic Tile Festival, and the last, the actual municipality. It seems that one would suffice, particularly given that in the case of the first two profiles, publications are quite rare (Woźniakowski, 2020).

4. Summary

On the basis of changes in interpersonal communication, communication between the office and the resident (or other stakeholders: investors, tourists, etc.) is constantly evolving. Various types of innovations introduced in this area may temporarily improve the communication process or even revolutionize it, as was the case with the internet (Woźniakowski, 2015) and the subsequent emergence of social media.

Summarizing the methods of communication of the cities in the Łódź Voivodeship on social networks, it should be stated that despite nearly two decades of their widespread use by people and numerous organizations, a significant part of city profiles is run as if their administrators were taking their first steps in the social marketing environment. The capital of the region stands out among all the analyzed cities, and its activities can be a point of reference for them. It cannot be said that the promotional budget of a large city is certainly disproportionately high in relation to other cities in the region, as maintaining a profile on a social network can be a relatively low-cost communication tool. It is mainly about the division of duties and competence of the appropriate people in the office coordinating activities in social media, or employing a suitable external entity. To ensure the effectiveness of communication activities employing social media, it is necessary to have an appropriate strategy in this area for all channels. In many cases, not having it will produce a sense of chaos and randomness in the contents posted. The epidemic only confirmed this state of affairs. While drastically shifting the tone of communication to more definitively formal in the first phase of the threat is understandable – considering that it was a completely new situation for everyone – it seems incomprehensible to continue this method of communication once the residents have become accustomed to the new situation; formal communication through social media is essentially a contradiction of their original idea, which is based on direct and informal communication.

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KEY AREAS OF BLOCKCHAIN TECHNOLOGY APPLICATION IN LOGISTICS

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Purpose: The main purpose of the article is to present the current state of knowledge and business practice in the field of the use of Distributed Ledger Technology in logistics, with particular emphasis on Blockchain Technology, along with an indication of examples of its practical application in enterprises providing logistics services.

Design/methodology/approach: The article was mainly based on a thorough analysis of quantitative and qualitative data contained in documents made available by the European Union institutions and reports created by institutions aimed to analyze the development of the Blockchain Technology. The data is supported by modern scientific articles concerning the topic of Distributed Ledger Technology in logistics and supply chain.

Findings: The result of this article is an indication of the key areas of blockchain technology application, with numerous practical examples of its application. The set of practical applications, created on the basis of literature research and analysis of internet sources concerning individual applications, has been divided according to the criterion of the subject area of its application.

Originality/value: The originality of the article consists in analyzing modern solutions based on Blockchain Technology and creating a non-exhaustive collection of 26 applications based on Distributed Ledger Technology aimed to support modern logistic services. This collection has been divided into 4 groups according to area of application criterion.

Keywords: blockchain technology, Distributed Ledger Technology, Logistics 4.0, sustainable development, trust management, Internet of Things.

Category of the paper: general review.

1. Introduction

Due to increasing importance of information flows within various logistics systems, observed in recent years, it seems justified to constantly seek to optimize them (Hacker, 2007). Logistic information systems – consisting of numerous information streams connecting executive units of organizations with their management system – undoubtedly provide

numerous benefits to entities interested in improving the effectiveness of logistics processes (Prajogo, 2018). It can be stated that, in today's logistics, the efficiency of material flows is largely dependent on the quality of information flow (Rajaguru, Matanda, 2013), while inter-organizational information systems are a key tool for shaping relationships in supply chains (Pereira, 2013). The continuous development of information technology, observed all over the world, suggests a series of analyses concerning the possibility of implementing the latest technological solutions in the context of information flow management, but also – in some cases – material and financial flows. Undoubtedly, possibilities of streamlining these flows fit into the scope of logistic interest (Nowakowska, Nowakowska, 2012). One of the technologies, that can be used in the management of logistics systems, is blockchain technology (Queiroz, Fosso Wamba, 2019). As it is increasingly considered a next-generation information tool, it is argued that the use of blockchain in logistics can affect the efficiency and growth of partnerships in the supply chain, thus affecting its performance (Kim, Shin, 2019).

In broadly understood logistics activities, the use of blockchain technology can reduce delays in orders, damage to goods, errors and duplication of data (Tijan et. al., 2019). In addition, blockchain technology appears in almost all lists of the most trending technologies in recent years, in the context of their application in logistics. According to the PwC report, published in 2019 (PwC, 2020), the Distributed Ledger Technology (DLT) was among the five key forces leading to the transformation of the logistics and transport market, indicating that they are applicable in all segments of logistics activity analyzed by PwC. On the other hand, the “Global Blockchain Survey” annual report, published by Deloitte, suggests that, in 2019, the discussion about blockchain in enterprises changed from: “Will blockchain work?” to: “How can we make blockchain work for us?” (Pawczuk et. al., 2019). The report also points out that organizations clearly see blockchain as their top priority, as indicated by 55% of respondents (an increase from 53% in 2019 and 43% in 2018). The group of respondents to the above-mentioned survey included 1,488 senior managers and management practitioners familiar with the operation of DLTs from different regions of the world. In addition to recognizing the priority of using blockchain technology for the current management of organizations, literature on the subject contains numerous references to the issue of sustainable development in the supply chain management. Currently, ensuring the sustainable development of supply chains is considered in three basic dimensions: economic sustainability, social sustainability and environmental sustainability, which – for many years – have been referred to as the Triple Bottom Line (Elkington, 1998). Among the main problems of modern supply chains regarding the aspect of economic sustainability, the following can be distinguished: insurance claim (Klibi, Martel, 2010), supply chain procurement contracts (Ghosh, Shah, 2015), high overseas financial transaction fees (Niepmann, Schmidt-Eisenlohr, 2017), loss due to discrepancy in information sharing among the supply chain stakeholders in real-time (Dubey, 2020) and cost of monitoring sustainability (Kshetri, 2018). Problems related to the aspect of social sustainability are: child labor, employee wages, sourcing from local communities and

public health, or food traceability. On the other hand, the last aspect – environmental sustainability – is related to such issues as: supply chain wastage, pollution issues, footprint, illegally traded animal parts or plants (Giannakis, Papadopoulos, 2016). It is anticipated that the use of blockchain technology may contribute to solving the above problems, thanks to the use of smart contracts, ensuring transparency of information flow, invariability of records in databases, easy access to data by stakeholders and broadly understood traceability (Chandan, Potdar, 2019).

2. Multidisciplinary nature of blockchain technology and its place in the concept of Logistics 4.0

Financial services and fintech companies continue to lead the way in blockchain technology development, but other sectors – in particular government, life science and health care, as well as technology, media and telecommunications – are also developing blockchain initiatives (Pawczuk et. al., 2019). Undoubtedly, today, blockchain – as one of the breakthrough innovations – significantly affects the functioning of the economy. Every logistic system is an element of this economy, and the Deloitte report shows that:

- 88% of respondents believe that blockchain technology is widely scalable and will eventually reach widespread use (86% in 2019 and 84% in 2018),
- 86% of respondents believe that the executive team of enterprises they manage say, that there are convincing business arguments for using blockchain technology in the organization (83% in 2019 and 74% in 2018),
- 85% of respondents agree that suppliers, customers and/or competitors are discussing or working on blockchain solutions for current value chain challenges, that will serve the organization (82% in 2019 and 77% in 2018),
- 83% of respondents believe that an organization or project will lose their competitive advantage if they do not use blockchain technology (82% in 2019 and 77% in 2018).

The Deloitte report shows that blockchain technology is perceived by practitioners of supply chain management as an extremely important technology for the operation of companies implementing logistic processes, and great efforts are made to adapt it.

2.1. Blockchain Technology basics

While some of the principles contained in blockchain technology had already been described in earlier cryptography work, the foundations of the technology used today were first published in October 2008. The article was titled “Bitcoin: A Peer-to-Peer Electronic Cash System” and was published by the author or group of authors under the pseudonym Satoshi Nakamoto (Nakamoto, 2008). Blockchain, in the simplest terms, can be defined as a transaction

book that allows registration and tracking of every operation carried out within it, and which is scattered over the Internet in the form of non-modifiable copies (Biedrzycki, 2018). It is, therefore, a decentralized register of transactions, but it should be mentioned here, that it does not apply only to financial transactions, as could be inferred from the Bitcoin perspective. Blockchain makes it possible to describe the implementation of a given project from the perspective of information exchange (Casino, 2019). Taking into account the structure formed by blocks containing information about transactions, blockchain technology is, therefore, a system of elements used to store and transmit information about transactions, which are arranged as successive data blocks (Zhang, Xue, Liu, 2019). Each transaction is saved in the ledger as a block containing data about its value and conclusion time. Such a block is added to the previous ones and, together, they form an inseparable chain (Biedrzycki, 2018). Blockchain uses cryptographic solutions, such as one-way hashing functions or asymmetric cryptography (Dikariev, Miłosz, 2018). The system constructed in this way guarantees security and eliminates the problem of distrust – with no need for any central supervisory institution. Unauthorized changes to the ownership or value of assets are practically unfeasible, as all the previous blocks preceding the transaction would have to be changed. Currently, by far the best-known example of the use of this technology is the Bitcoin cryptocurrency, but this is only a small part of the possible applications (Grzywacz, 2018). In addition to applications within cryptocurrency markets, blockchain technology can also be widely used to transfer value, while ensuring a high level of security. For the purposes of this article, the issues of cryptocurrencies and technical details of blockchain technology are not analyzed. The article focuses on the possibilities of using blockchain in logistics, with particular emphasis on the area of information flows. A review of blockchain definitions appearing in the literature and in the message shaped by units involved in its use (e.g. cryptocurrency exchanges) is presented in Table 1.

Table 1.

A review of blockchain definitions

Source	Definition
(Coinbase, 2020)	A distributed, public ledger that contains the history of every bitcoin transaction.
(Oxford Dictionaries, 2018)	A digital ledger, in which transactions made in bitcoin or another cryptocurrency are recorded chronologically and publicly.
(Stroud, 2020)	A type of data structure that enables identifying and tracking transactions digitally and sharing this information across a distributed network of computers, creating – in a sense – a distributed trust network. The distributed ledger technology offered by blockchain provides transparent and secure means for tracking the ownership and transfer of assets.
(Sultan, Ruhi, Lakhani, 2020)	A decentralized database containing sequential, cryptographically linked blocks of digitally signed asset transactions, governed by a consensus model.
(Quiniou, 2019)	A distributed ledger based on a data structure, in which transactions are stored in blocks that are chained to each other. A block contains, in addition to transactions, the hash of the previous block. The modification of a transaction, therefore, modifies not only the block to which it belongs, but all the blocks that follow it. The blockchain structure gives the distributed ledger its immutability.

Cont. table 1.

(Natarjan, Krause, Gradstein, 2017)	A particular type or subset of the so-called distributed ledger technology. DLT is a way of recording and sharing data across multiple data stores (also known as ledgers), each of which has the exact same data records and which are collectively maintained and controlled by a distributed network of computer servers, called nodes. Blockchain is a mechanism that employs an encryption method known as cryptography and uses (a set of) specific mathematical algorithms to create and verify a continuously growing data structure – to which data can only be added and from which existing data cannot be removed – that takes the form of a chain of “transaction blocks”, which functions as a distributed ledger.
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The first two presented definitions focus on the narrow application of blockchain technology in relation to the cryptocurrency market, but the next two suggest a wider use of it. All the definitions indicate the fact that blockchain is a technology focused on improving not only information flows, but also other types of flows, including material flows. The last two definitions emphasize the fact that the blockchain technology is the part of a broader technology – Distributed Ledger Technology. Solutions based on DLT are expected to find its application in very broad scope of economics (Swan et. al., 2019).

2.2. Multidisciplinary nature of blockchain technology

The multidisciplinary nature of blockchain technology, suggested in some of the definitions, is visible in literature, as well as business practice of enterprises from various industries. As a confirmation of the above claim, Figure 1 may be used to show potential areas of blockchain application in different economic branches (Zhang, Xue, Liu, 2019). On the other hand, Figure 2 aims to position the potential areas of blockchain technology application in a matrix, taking into account two dimensions: blockchain access and blockchain scope (Sultan, Ruhi, Lakhani, 2018). As shown in Figure 2, blockchain technology is used in a wide spectrum of areas of the economy, and there are many confirmations for this state in the literature (Bansod, Ragha, 2020; Zheng et. al., 2018; Mohamed, Al Jaroodi, 2019). The “access” dimension, indicated in Figure 2, is characterized on the basis of the answer to the question whether the basic function of blockchain is data processing (application) or its presentation (service); while the “scope” dimension is based on the question: is the access to a given blockchain public or private. Therefore, for the purposes of further considerations, it is necessary to distinguish two basic types of blockchains, according to the criterion of database access rights: private and public chains. A public data ledger (public blockchain) is available to everyone and allows all entities to analyze (read) ongoing transactions, as well as to submit transactions for writing within the network, while a private data ledger (private blockchain) is available only to selected participants, who have the right to inspect (read) the transactions made or can submit transactions to be placed in the block (EPRS, 2020). Therefore, as shown in Figure 2, the use of blockchain technology in relation to SCM requires the creation of a private blockchain, focused on data processing, which seems obvious from the perspective of the functioning of supply chains as structures operating dynamically and requiring

continuous monitoring of flows inside it. The main features of blockchain can be very useful for supply chain applications: public availability makes it possible to trace products from the place of origin to the end customer, decentralized structure enables the participation of all parties in the supply chain and its invariable nature – based on cryptography – guarantees security (Tijan et. al., 2019).

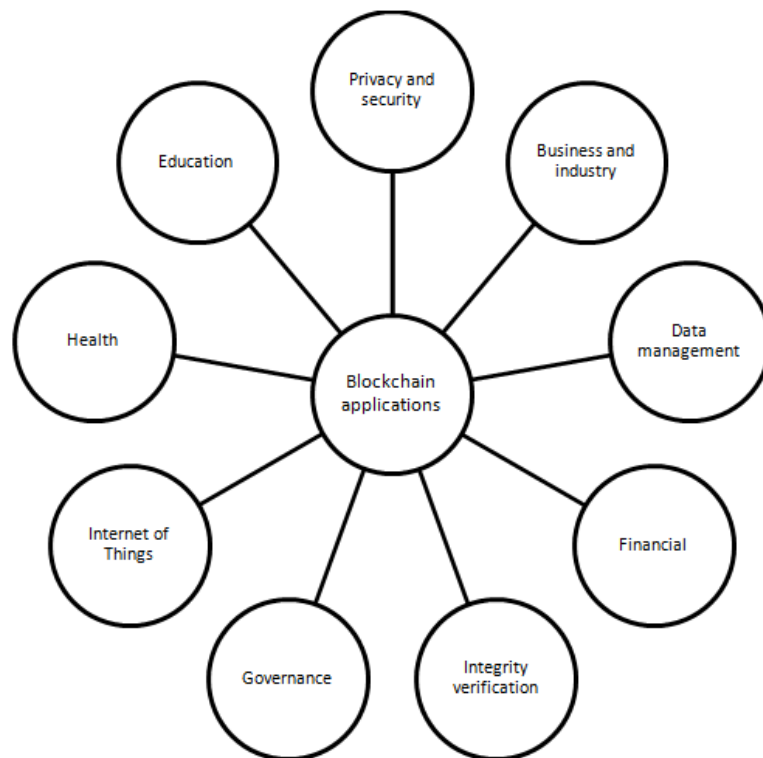


Figure 1. The areas of blockchain implementation in economics.

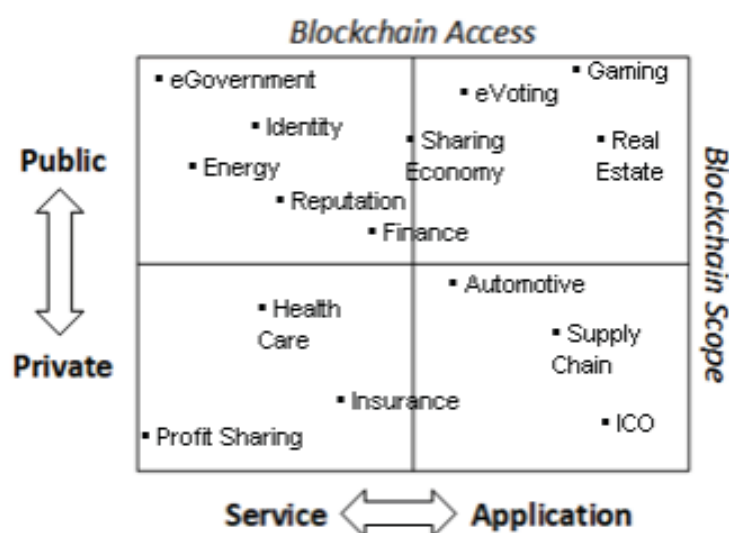


Figure 2. Blockchain Access vs Blockchain Scope matrix. Adapted from: (Sultan, Ruhi, Lakhani, 2018).

2.3. Blockchain technology and Logistics 4.0

The blockchain technology is also part of the currently discussed Logistics 4.0 concept, which is a concept supporting Industry 4.0 processes, from processing market requirements and production planning to delivering products to end users (Radivojevic, Milosavljevic, 2019). The solution to these problems is, in the opinion of the authors of the concept, digitization of activities and logistics processes. The main features of digitization of logistics systems are (Kayikci, 2018):

- Cooperation – digitization enables the creation of virtual logistic associations (clusters), through which companies exchange data and information.
- Connectivity – digitization enables horizontal and vertical integration in supply chains and visibility of information in all links of the chain.
- Adaptability – the connected digital assets system is flexible, as it can respond to various changes in the market (requests, users, suppliers etc.).
- Integration – in the digital world, the integration of logistics systems is the process of physically or functionally linking different computer systems and applications to ensure coordination of logistic flows.
- Autonomy of objects – smart objects are increasingly appearing in the logistic systems, which have the ability to communicate and make independent decisions based on processing of their own data, as well as environmental characteristics.
- Cognition – the use of devices and systems to automate tasks requiring human skills, knowledge, perception and cognitive abilities (planning, reasoning and learning).

Most of the above-mentioned features are related to the blockchain technology, which – within the concept of Logistics 4.0 – is recognized as one of its key components and technologies. In addition to blockchain, elements such as wireless sensor networks, the Internet of Things, AGV systems, 3D printing, drones, cloud computing, Big Data, robotization and process automation, as well as augmented reality are mentioned in this context (Radivojevic, Milosavljevic, 2019).

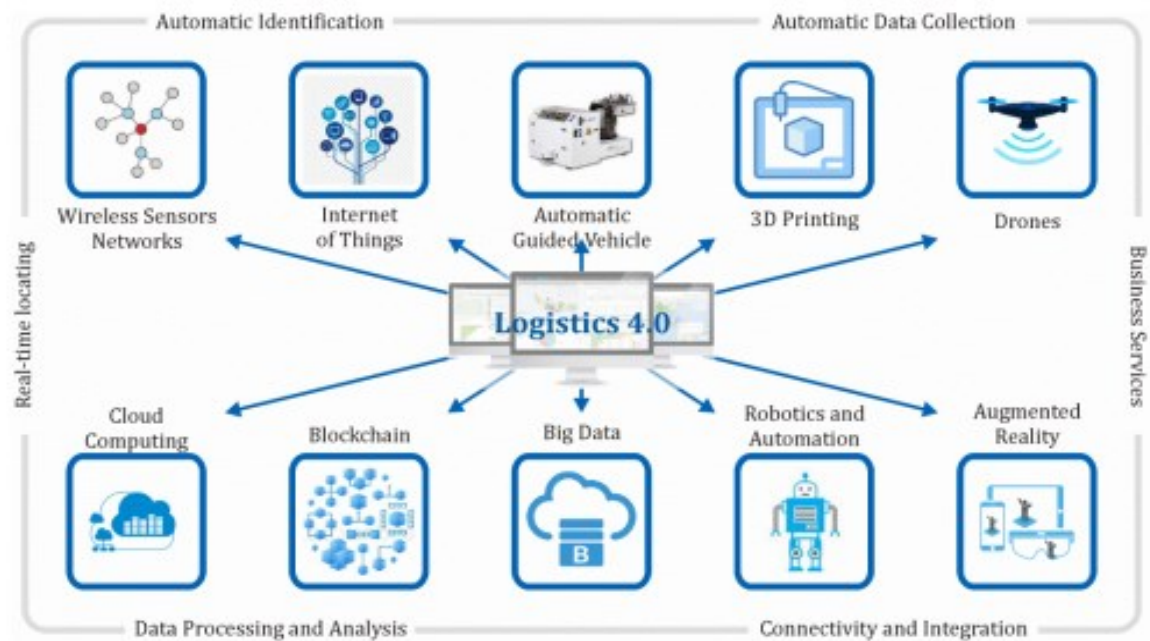


Figure 3. The place of blockchain technology in the concept of Logistics 4.0.

All of the solutions presented in Figure 3, which are components of the Logistics 4.0 concept, focus on issues such as: real-time location of goods, data processing and analysis, business services, automatic identification of goods or automatic data collection (Wang, 2016). The above-mentioned issues are the starting point for considerations contained in the further part of the article focusing on the areas of application of blockchain technology in logistics and SCM.

3. The areas of blockchain technology application in logistics

A logistic system, perceived as a comprehensive set of mutual relations between numerous stakeholders – such as producers of goods, importers, exporters, logistic companies, financial market authorities, operators of infrastructure hubs, government and territorial administration bodies or, finally, consumers of goods – is characterized by a huge spectrum of information flowing through this system and, thus, a huge amount of documentation is produced within it (EPRS, 2020). The vast majority of it is created and processed at individual stages of the flow within the supply chain – manually (Skiba, 2020). The use of blockchain technology could significantly automate these processes, while also maintaining a high level of security for their implementation (Szewczyk, 2019). Storing data on transactions between the links of the supply chain in a dedicated, private blockchain would provide full transparency of activities performed within the supply chain for its participants. The actors in a given supply chain would, thus, gain access to transaction data and the stage of its execution in real time. Other current problems, faced by modern supply chains, are indicated on the basis of (UNECE, 2019) in Table 2.

Table 2.*Modern key problems of supply chains*

Problem	Explanation
Proving the origin of goods	Today, many transactions are made on the basis that the delivered goods are of the declared quality or origin. Currently, buyers do not have a cost-effective way to verify the authenticity of supplier's claims. This increases the dependence on long-term and large-scale contracts with established players and creates natural entry barriers for new and smaller suppliers – and this, in turn, harms real competition.
Customs delays	Customs and excise officials at each border rely on the provided information while making decisions. The ability of unscrupulous actors to alter or fabricate information increases the risk and distrust of the process. This risk and distrust then become delays, costs and uncertainties for all actors in the supply chain, who do not know whether they are good or bad players.
Poor transparency in supply chains	Some of the biggest inefficiencies in many supply chains are the time and effort required to gather accurate information on the location, condition and estimated time of arrival (ETA) of goods in the supply chain.
Supply chain resilience	When a supply chain breaks, it is often very difficult to recreate it in order to understand the root cause of problems. Being able to prevent and intelligently respond to these incidents has a huge impact on the costs and performance of enterprises, even outside the supply chain.
Errors in payments processing and auditing	Sometimes, an audit may not identify all potential discrepancies in the financial flows of the involved links in the supply chain.
Data-driven scams	Even the most detailed audits can overlook the signs of fraud hidden in thousands of data files. However, blockchain technology already enables today's supply chain players to reduce and more easily identify fraud attempts.
Dispute resolution	As with the supply chain resilience discussed above, disputes that arise due to time, quantity or quality could be more easily resolved, if reliable data on these (for example time and date of delivery) were recorded on the blockchain. In theory, some disputes could also be avoided by using a set of smart contracts that self-execute based on terms pre-agreed by all parties, thus reducing administrative costs and legal bills.
Information flow that ends at the point of sale	Under current supply chain arrangements, with the limited exception of warranty items, the supply chain ends at the final consignee. Contact with the product is lost and important information about its use is not recorded.

The above-outlined problems in the logistics environment seem to suggest the statement that it is possible to use the described technology for SCM in order to reduce the impact of identified problems on supply chains. Among the applications of blockchain in logistics and SCM, some sources indicate (Litke, 2019):

- Recording the flow of resources through individual links in the supply chain.
- Tracking orders, receipts, invoices, payments and any other official documents.
- Tracking digital assets (such as warranties, certificates, copyrights, licenses, serial numbers, barcodes) in a standardized way and in parallel with physical assets.
- Sharing information on the production process, delivery, maintenance and consumption of products between suppliers and sellers, introducing new opportunities for cooperation on complex assembly lines with the use of IoT.

In relation to other studies (Hackius, Petersen, 2017), 4 areas of blockchain technology application in logistics can be identified:

- Document processing/reduction of paperwork – global shipping of containers involves a lot of paperwork, which costs time and money. In addition, shipping documents are prone to loss, fraud and forgery.
- Identification of counterfeit products – counterfeit drugs are a growing problem in pharmaceutical supply chains. This is especially true in case of expensive, innovative drugs, such as cancer drugs. Pharmacies must sell the “right thing” to consumers.
- Facilitating traceability – food-borne outbreaks in the food supply chain are a challenge for retailers. They need to get a quick overview of where the food is coming from, as well as what other products were also involved in production and need to be removed from stores.
- Internet of Things support – logistics facilities are to be equipped with sensors that generate data in the supply chain – e.g. about the status of the shipment. This data must be stored in an unchanging, accessible way.

Documents summarizing the research conducted by the European Parliament Research Service (EPRS, 2020) indicate, in turn, four key areas of blockchain applications in relation to logistics:

- digitalization of resource exchange within the supply chain,
- cargo security in maritime transport,
- enforcement of trademarks and property rights,
- providing additional traceability and transparency in trade.

According to PwC report – Five Forces Transforming Transport & Logistics, PwC CEE Transport & Logistics Trend Book 2019 – the key applications of the discussed technology in transport and logistics include (PwC, 2019): automation of transport processes, product authentication, payment automation, tracking the flow of goods, digitization and automation of information flow. On the other hand, authors of a large-scale study focused on the implementation of blockchain technology in both the academic and business dimensions indicate that, in both of them, there are certain useful properties of blockchain technology or its application possibilities, such as traceability, anti-fraud capability, trust management, IoT transparency and integration (Gonczol et. al., 2020). As a result of the analysis of the currently developed projects, based on the blockchain technology, and referring to the areas indicated above, a list of 26 commercial applications was prepared (Table 3) with an indication of the areas to which they relate.

Table 3.

Selected commercial examples of logistics support applications based on blockchain technology

ID	Example of application	Main areas of application	Source
1.	Accenture	-Reduction of paperwork -Tracking the flow of goods -Trust management	https://www.accenture.com/_acnmedia/PDF-93/Accenture-Tracing-Supply-Chain-Blockchain-Study-PoV.pdf
2.	Ambrosus	-IoT support - Tracking the flow of goods	https://ambrosus.com/assets/en/-White-Paper-V8-1.pdf
3.	CargoCoin	-Reduction of paperwork -Trust management	https://thecargocoin.com/docs/CargoCoin-Whitepaper.pdf
4.	Cargowise	-Tracking the flow of goods -Identification of counterfeit products	https://www.cargowise.com/
5.	CargoX	-Reduction of paperwork - Tracking the flow of goods - Tracking digital assets	https://cargox.io/CargoX-Business-Overview-Technology-Blueprint.pdf
6.	ePhyto certificate in the Port of Antwerp	-Reduction of paperwork -Tracking the flow of goods -Security of cargo	https://www.wto.org/english/res_e/reser_e/session_2b_1_nico_de_cauwer_v2.pdf
7.	Everledger	-Tracking the flow of goods -Identification of counterfeit products -IoT support	https://www.everledger.io/industry-applications
8.	Guardtime	-Identification of counterfeit products -Tracking the flow of goods -IoT support	https://guardtime.com/health/efficient-supply-chain-management
9.	Insurwave	-Trust management -Reduction of paperwork	https://insurwave.com
10.	Mediledger	-Tracking the flow of goods -Security of cargo	https://assets.chronicled.com/2018-MediLedger-Progress-Report.pdf
11.	Modum	-IoT support -Reduction of paperwork -Tracking the flow of goods	(Bocek, 2017)
12.	NextPakk	-Trust management -Tracking the flow of goods	https://s3.amazonaws.com/nextpakk-assets/docs/pakka-icowhitepaper.pdf
13.	OriginTrail	-Trust management -Tracking the flow of goods -Automation of transport process	(Rakic et. al., 2017)
14.	PeerLedger	-Tracking the flow of goods -Security of cargo -Trust management	https://peerledger.com/food-industry
15.	PharmaTrace	-Tracking the flow of goods -Trust management	https://www.pharmatrace.io/
16.	Provenance	- Tracking the flow of goods -Identification of counterfeit products -IoT support	https://www.provenance.org/case-studies
17.	Riddle&Code	-IoT support -Trust management	https://www.riddleandcode.com/product-1
18.	Skuchain	-Reduction of paperwork -Tracking the flow of goods -Trust management	http://www.skuchain.com/ec3/
19.	Skycell	-IoT support -Tracking the flow of goods	https://www.skycell.ch/software.html
20.	SmartLog	-Tracking the flow of goods -Automation of transport processes	https://smartlog.kinno_/articles/project-smartlog-blockchain-logistics
21.	Sweetbridge	-Trust management -Tracking the flow of goods -Reduction of paperwork	https://sweetbridge.com/

Cont. table 3.

22.	SyncFab	-Trust management -Tracking the flow of goods -Identification of counterfeit products	https://syncfab.com/SyncFab_MFG_WP.pdf
23.	TradeLens	-Trust management -Tracking the flow of goods -Identification of counterfeit products	https://www.tradelens.com/solution
24.	Vinchain	-Trust management -Reduction of paperwork	https://vinchain.io/
25.	Walmart, Hyperledger	-Tracking the flow of goods -IoT support -Security of cargo	https://www.hyperledger.org/wp-content/uploads/2019/02/Hyperledger_CaseStudy_Walmart_Printable_V4.pdf
26.	Waltonchain	-IoT support - Tracking the flow of goods	https://www.waltonchain.org/en/Uploads/2019-04-25/5cc171763aebb.pdf

Table 3 presents a subjective list of commercial uses of blockchain technology in relation to logistics and supply chain management. For the purposes of this article, Table 3 shows only the areas, to which individual solutions relate, while their broader characteristics can be found on the websites of individual applications (see “Source” column). As it is visible in Table 3, the presented solutions focus on a few key areas mentioned in previous parts of the article.

4. Conclusion

The blockchain technology based on the Distributed Ledger Technology, despite its common association with cryptocurrency markets, appears to be highly multidisciplinary. In today's market economy, numerous applications can be found in a wide spectrum of fields. One of them is undoubtedly the broadly understood logistics. This article emphasizes the fact that the described technology fits into the concept of Logistics 4.0, emphasizing the attributes of digitization of logistics systems. The author of the article also synthesized data from a number of reports of various types of institutions researching the implementation of blockchain technology in business, as well as the latest scientific publications, in order to prepare a non-exhaustive collection of areas of application of the blockchain technology in logistics and supply chain management. The future scientific task for the article author will be to focus on the problems and limitations of the implementation of the discussed technology in the logistics environment, and to conclude with a proprietary set of conditions that must be met by organizations interested in effective implementation of blockchain technology in its entirety or part of its business activity. These conditions will be the starting point for the preparation of a detailed set of recommendations and guidelines in the scope outlined by the set of conditions.

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