

STUDY ON THE DIMENSIONS OF SUSTAINABLE DEVELOPMENT IN THE PERSPECTIVE OF THE INHABITANTS OF A LARGE CITY

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Objective: The aim of this article is to examine the aspects of the 2030 Agenda for Sustainable Development, adopted in 2015 by 193 United Nations (UN) countries, in social, economic and environmental terms using the example of a large city, and the respondents' interpretation of the proposed problems included in the survey questionnaire.

Design/methodology/approach: The research was conducted remotely using an online survey questionnaire. The diagnostic survey method was used to survey residents. The research topic is related to sustainable development, based on the current life situation and factors influencing the sustainable development of cities.

Conclusions: The study found that sustainable development affects the functioning of residents' lives in both professional and private areas. The research conducted provides a picture of the view of problems and issues related to life in a large city. The research shows the direction of improving the quality of life of residents and their expectations regarding the place where they live.

Social consequences: The result of the presented work may be, in particular, the discovery of gaps in the implementation of the idea of a smart city and the indication of areas where people using the benefits of sustainable development see the need for change.

Originality/value: The most important value of this work is conducting research among residents of a sample city and checking their opinions. Thanks to this, we learn not only about scientific theories, but also about the effects of their successful or unsuccessful implementation in the lives of residents of a smart city.

Keywords: sustainable development, social dimension, economic dimension, environmental dimension.

Article Category: Research paper.

Introduction

Sustainable development is based on three pillars: social, economic and environmental. These pillars are closely linked and constitute a tripartite balance aimed at achieving harmony between social and economic progress, and environmental protection. It is a concept that promotes long-term and timely growth in care for people and environmental protection. Below is a diagram showing the three pillars of sustainable development.

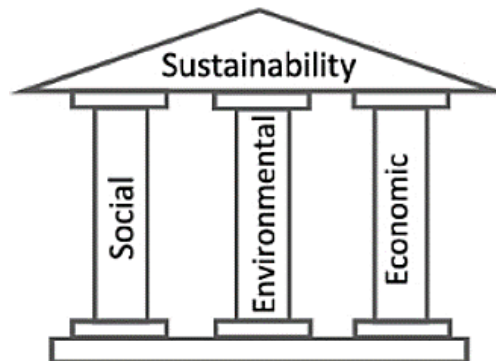


Figure 1. Pillars of sustainable development, ecology, economy, society.

The ecological (environmental) pillar focuses on protecting the natural environment and maintaining harmony in this area. It focuses on responsible management of natural resources, environmental protection, greenhouse gas emission reductions, protection of biodiversity and places great emphasis on renewable energy.

The economic pillar focuses on sustainable economic growth, innovative solutions, the labor market and related job creation. Sustainable economic development strives for economic stability and fairness.

The social pillar shows issues related to social justice, equal opportunities, equal human rights and its comfort in everyday life. The main aspects of this pillar are education, health, living conditions, the fight against poverty and social inequalities.

The implementation of all of the above pillars is associated with the inseparable cooperation of public sectors. The involvement of sectors of society, non-governmental organizations, enterprises conducting various businesses and citizens is essential to the implementation of sustainable development tasks. The rational use of the pillars of sustainable development is essential to the implementation of a good quality of life, the satisfaction of residents and actions aimed at the rational use of the resources of our planet.

Figure 2 presents the Sustainable Development Goals (SDGs) developed for the 2030 Agenda for Sustainable Development, adopted in 2015 by 193 United Nations (UN) countries.



Figure 2. Sustainable Development Goals.

For the purpose of this article, several goals from Agenda 2030 have been selected, based on the topic of the work and referring to the questions prepared in the next part of the publication. This article will present:

Goal 3. Ensure healthy lives and promote well-being for all at all ages.

Goal 4. Ensure quality education for all and promote lifelong learning.

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

Goal 9: Build resilient infrastructure, promote sustainable industrialization and support innovation.

Goal 11: Make cities and human settlements safe, resilient, sustainable and inclusive.

Strategy for responsible development outlined on the basis of the 2030 Agenda and for sustainable development presents three main goals containing the objectives of the agenda. This strategy indicates priorities depending on the context and the specific goals set. The following priorities are:

1. Protection of the natural environment.
2. Social equality and justice.
3. Economic growth.
4. Education and health.
5. International cooperation and global partnership.

These priorities serve to implement actions aimed at responsible development of each of the sectors of the strategy. Their implementation requires commitment and cooperation from many areas of society and the intensity of cooperation both locally and globally.

The detailed objectives of the Responsible Development Strategy include the following issues:

Specific objective 1: Sustainable economic growth based increasingly on knowledge, data and organizational excellence.

Specific objective 2: Socially sensitive and territorially sustainable development.

Specific objective 3: Effective state and institutions for growth and social and economic inclusion.

In the city under study, the basic pillars presented in this article can be distinguished and characterized. The opinions of residents are one of the most valuable comments that can bring about changes in cities. Only the residents of a given area know what they need, what they want to change to make their lives in their city better. For the purposes of the study, the following research questions were formulated:

1. How does a resident of a large city perceive sustainable development?
2. How does a resident assess the individual pillars of sustainable development?
3. How do residents perceive the most important factors influencing sustainable development in the local context?
4. What are the most important problems noticed by a resident of a large city in the context of sustainable development?

Methods

In order to maintain anonymity, the research was conducted remotely, using an online survey questionnaire. The request to complete the survey was sent to residents of a selected city in the Silesian agglomeration. Commonly available methods of determining the location of respondents and blocking the possibility of the same person completing the survey several times were used. The low number of responses in relation to the requests to complete, of which almost a thousand were sent, is worth noting. Thanks to modern internet tools that allow easy reaching of a wide range of people, online research has become one of the most popular forms of research. Platforms aimed at conducting research and immediately defining the respondent base through e-mail addresses are a great convenience. By creating an e-mail once, you can reach many people by downloading the database. This is a very convenient and widely received form of survey that allows you to learn the opinion of the public. There are also available survey forms, discussion forums, which here are more directed towards expert interviews and a broader discussion on a given topic. The survey was completed by 186 residents. This is only a few percent of the people who spoke.

The diagnostic survey method was used. The questions, of which there were significantly more, were limited to four, and they are extensive and, as it turned out, yielded interesting research material.

The research topic is related to sustainable development, based on the current life situation and factors influencing the sustainable development of cities.

Results

186 people took part in the conducted research on sustainable development in a large city. Thanks to the answers provided by the respondents, it was possible to assess the individual pillars of sustainable development that were included and to determine the impact of key factors influencing them in the city. At the beginning of the survey, respondents were asked about the standard of living in the city, how it is assessed and perceived by the respondents. Respondents were also asked to assess the individual pillars of sustainable development. The following aspects were included in the study: standard of living in a large city, aspects of sustainable development in a large city, public transport, culture, housing economy, labor market, social infrastructure, civic (participatory) budget.

The first question and issue raised in the survey questionnaire was the standard of living in the city (Figure 3).

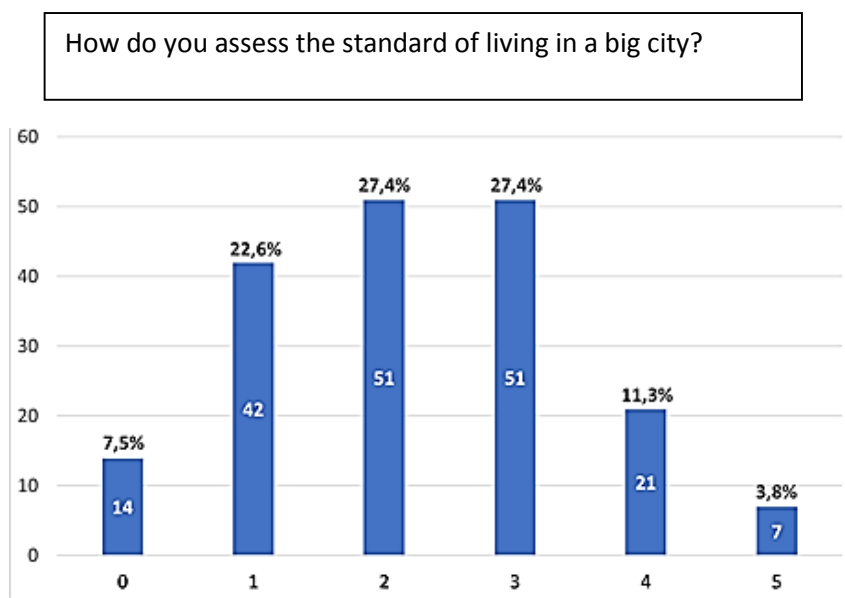


Figure 3. Summary of responses to the question How do you assess the standard of living in the city?

The standard of living in the city was assessed as moderate, which may be influenced by many factors, such as the housing economy, the labor market or the surrounding social infrastructure. Many respondents assessed the level as 1, which is not a favorable assessment and indicating more the direction of improving the quality of life in the city. Thanks to this

question, residents showed that living conditions should be improved by referring to and analyzing each aspect of life in turn. The city also received a rating of 4 and 5, although this was a small group of respondents. Assessments of the standard of living may depend on the length of residence or social class, but also on the preferences and expectations of each resident.

The next question included in the survey questionnaire for respondents was to show specifically which aspects influence the assessment of the quality of life in the city (Figure 4).

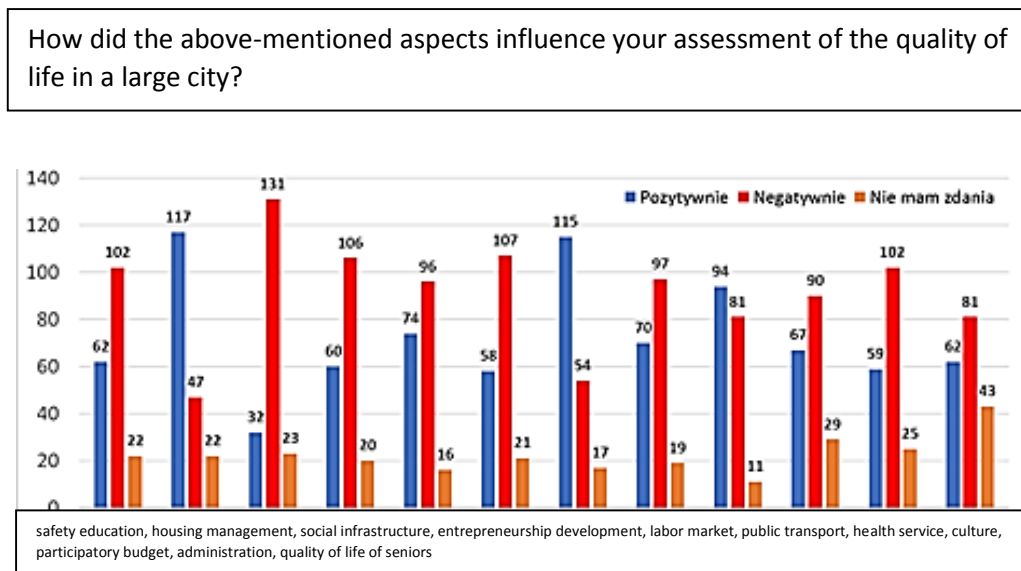


Figure 4. Summary of answers to the question How did the above-mentioned aspects influence your assessment of sustainable development in a large city?

The following aspects were analyzed: safety, education, housing, social infrastructure, entrepreneurship development, labor market, public transport, health service, culture, civic budget, administration and quality of life for seniors. Of all the aspects given, education was rated the best, with 117 respondents, followed by public transport, which was marked by 115 people, and culture by 94 people. The results of these three aspects rated the highest may indicate following today's world trends, in which education plays one of the most important roles. Transport was also rated positively and highly, which indicates modern public transport systems, as well as facilities related to purchasing tickets or checking travel. The third aspect rated highly is culture, which may indicate cultural events and events organized by the city. Housing was rated the most negatively, which may indicate low standards, investments and renovations of apartments in the city, then the labor market and social infrastructure were also rated negatively. When assessing the labour market, it is possible that respondents were influenced by the lack of jobs or wages in the city, while infrastructure is an important cultural and social element, and it also affects the image of the city itself.

Another question that received a high rating from respondents concerns public transport (Figure 5).

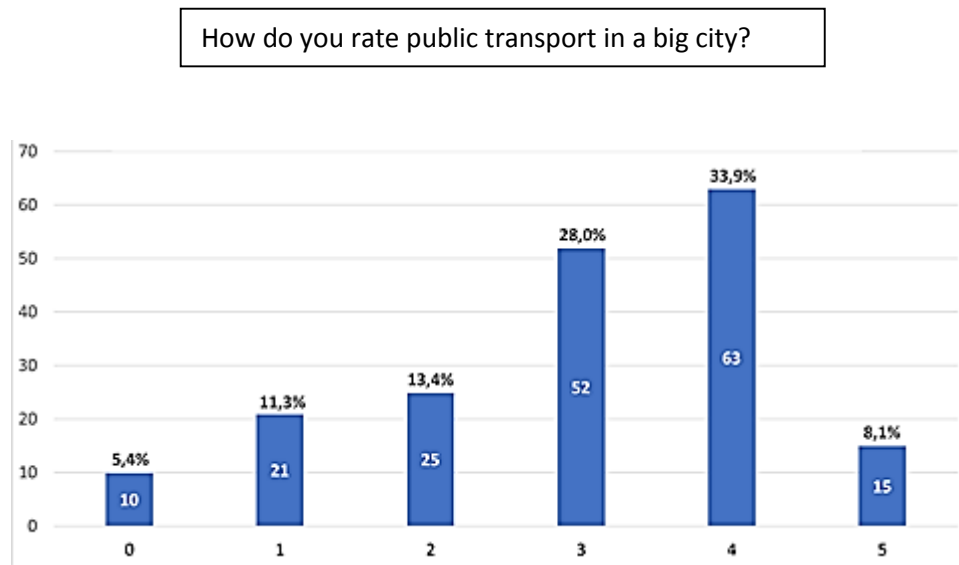


Figure 5. Summary of answers to the question: How do you rate public transport in the city?

Studies have shown that the city's residents positively and highly evaluate public transport. Such an evaluation may be influenced by modern transport, a banking system that allows you to buy a ticket online, digital boards informing about the timetable, with information about the departure time of a given means of public transport. Also the comfort of travel and repairs carried out on roads and railway tracks.

Respondents were also asked how they assessed the growth of cultural potential in the city (Figure 6).

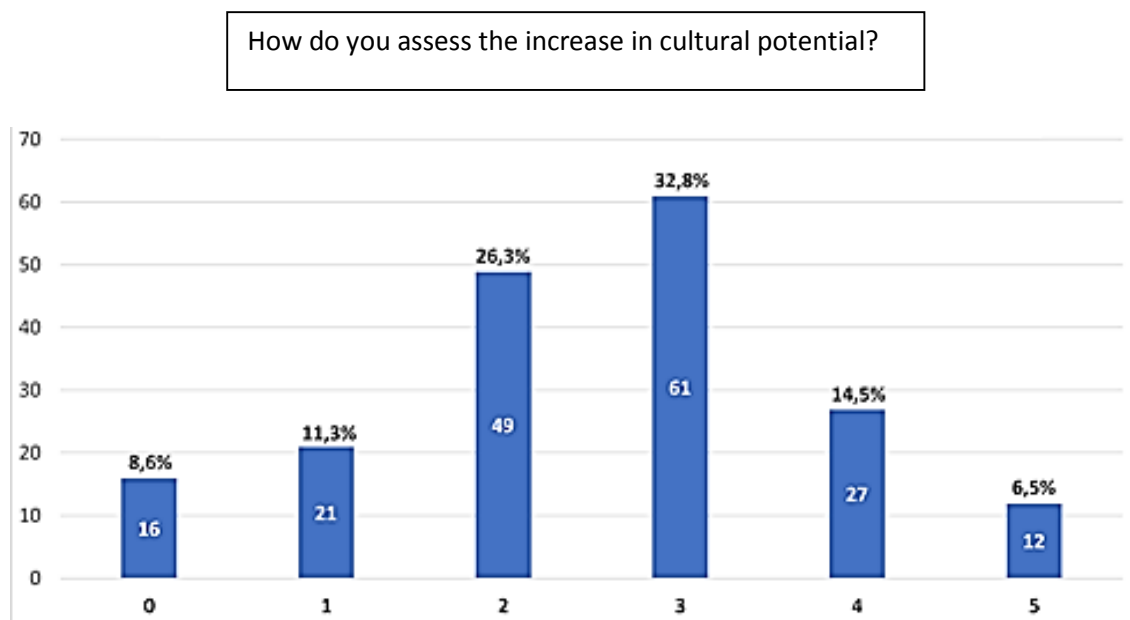


Figure 6. Summary of responses to the question: How do you assess the growth of cultural potential in the city?

The majority of respondents positively evaluate this area. The aspect of culture in the city is an important element in building tradition, encouraging residents to participate in city life, but also in ensuring that residents spend their free time in their city. Spending free time in their city is a big plus for them; the city thanks to events and cultural events have a chance to promote their advantages and encourage people to use them from the services of local companies.

The next question shows the quality of available housing offered by the city (Figure 7).

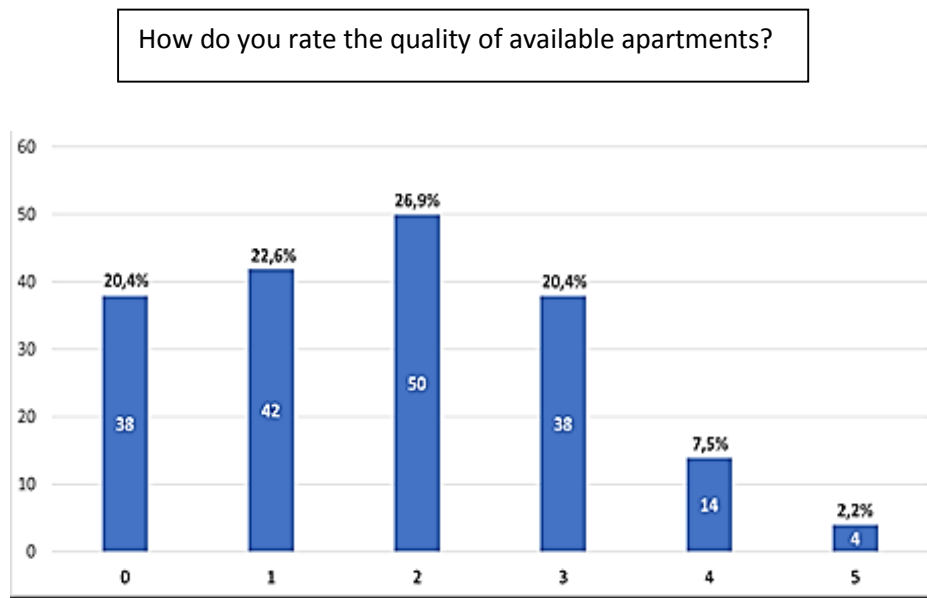


Figure 7. Summary of answers to the question: How do you assess the quality of available apartments in the city of Zabrze?

In this question, the respondents mostly gave negative opinions, which is reflected in Figure 7. The respondents' assessments were very low, indicating the scale of the housing problem. Only 9.7% gave positive opinions. A negative assessment may indicate low standard, size, lack of renovation or destruction after previous tenants. Lack of care for the housing economy has a negative impact on the opinion of residents and the desire to stay in the city. Negative assessments may also have an impact on the future of the city, many people may move to other cities, improving their quality of life and housing.

The next question refers to the labor market and jobs in the city (Figure 8).

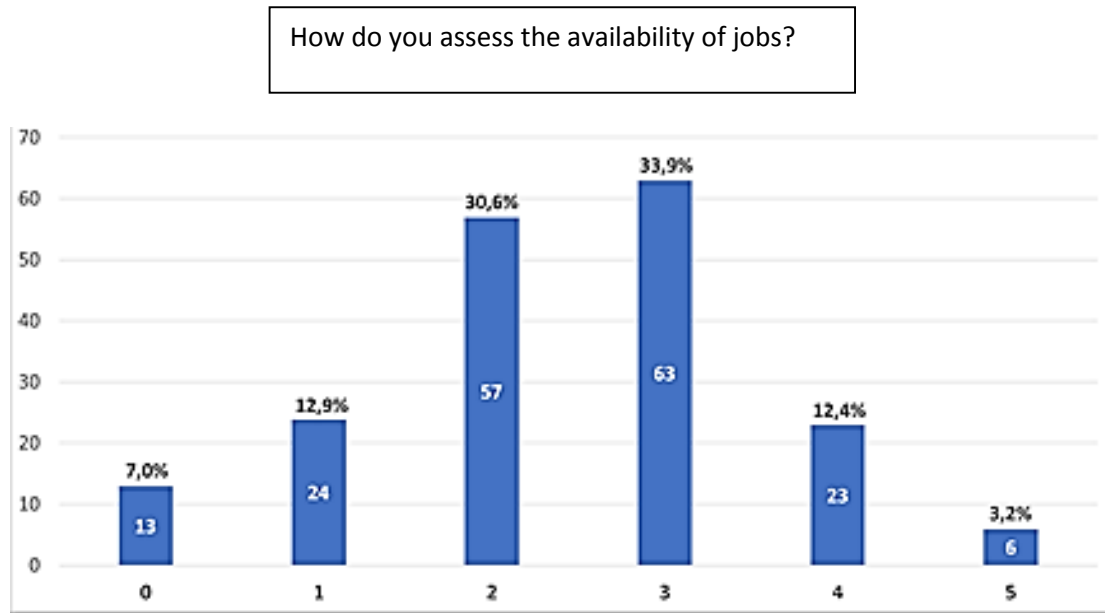


Figure 8. Summary of answers to the question: How do you assess the availability of jobs in the city of Zabrze?

Permanent employment and income are very important for people these days. During the pandemic and uncertainty in the labor markets and economy, employment is a priority for residents. The availability of jobs in the city was assessed moderately. A score of 2 was given by 30.6%, which indicates dissatisfaction with the number of jobs, while a score of 3 was given by 33.9%. 15.6% of respondents assessed it positively. The research results show that the number of jobs should be increased. Positive and negative assessments of respondents may also result from qualifications held and the lack of demand for a specific profession, or in the case of a positive assessment - the demand of the labor market in a given profession, field.

In the next question, respondents were asked to provide information about the condition of social infrastructure (Figure 9).

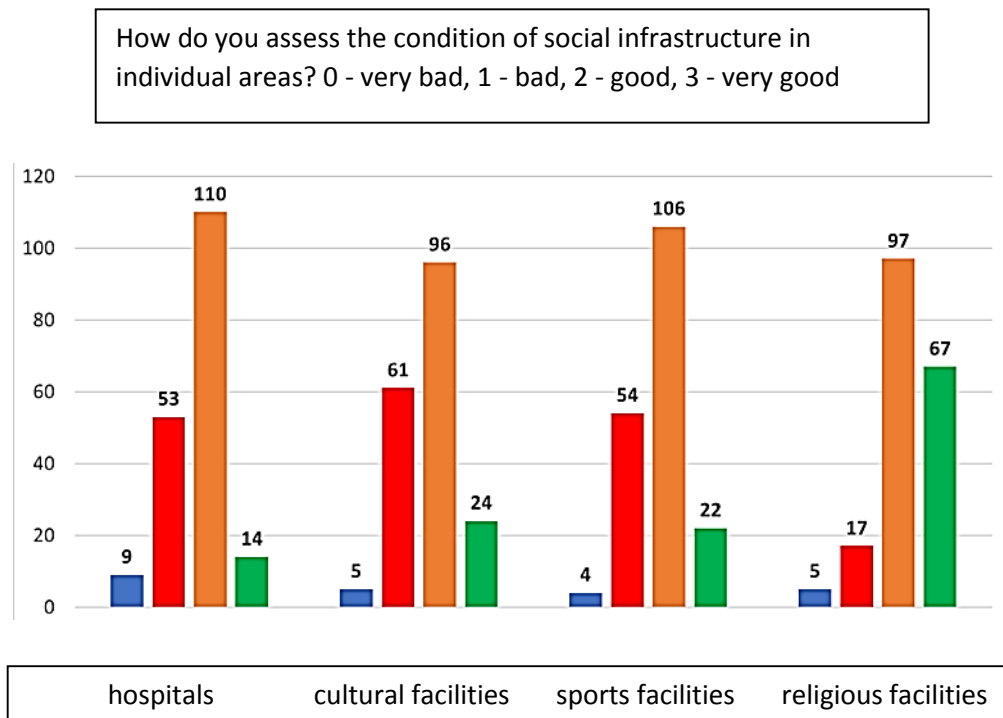


Figure 9. Summary of responses to the question: How do you assess the state of social infrastructure? in specific areas?

The listed facilities were rated well. The following facilities were rated very well in the assessment: hospitals were rated the best, then sports facilities, religious facilities and finally cultural facilities. There were also respondents who rated the infrastructure negatively, but these were sporadic cases. The answers to this question may indicate the city's care for social infrastructure and thus the positive opinion of residents.

The next question asked to the respondents was the impact of the participatory budget on the quality of life in the city (Figure 10).

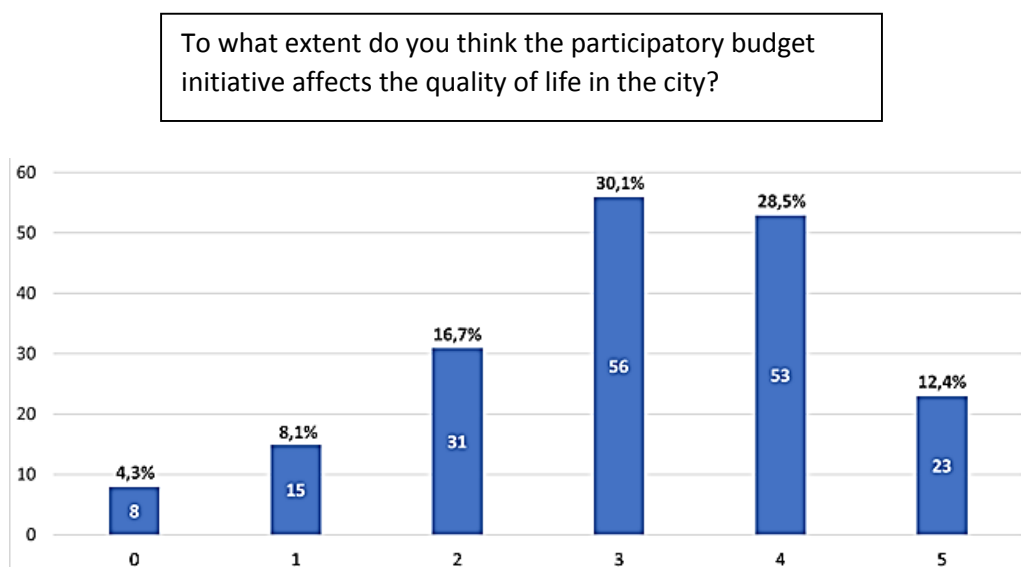


Figure 10. Summary of responses to the question: To what extent, in your opinion, does the participatory budget initiative affect the quality of life in the city?

Participatory budgets have become increasingly popular among residents in recent years. Thanks to the participatory budget, residents have a real influence on the actions and initiatives taken in the city. They can coordinate and engage in the life of the city and its development. The research results show that the majority of respondents support the idea of participatory budgeting and believe that it has an impact on sustainable development in the city.

Discussion

The conducted research was prepared in such a way as to show the image of a modern city in the beliefs of the people who live in it. It should be assumed that this image will be adapted to the personal knowledge and experiences of the respondents. Many aspects can influence the issuance of such and not another assessment. When writing the article, the author referred to the publication by Beata Zakrzewska entitled Sustainable development and quality of life. In her article, she shows the interpretation of the interdependence between several aspects. Among others, economic growth, quality of life and care for the environment. Beata Zakrzewska's article analyzes the quality of life in the context of the concept of sustainable development, similar to this publication. It refers to the social, economic and environmental aspects.

The first question of the survey concerned the standard of living. The apparent imprecision of the wording gave the surveyed people an opportunity to express their feelings related to the city. The quality of life of a given person depends not only on the simple fact of whether they have heating and running water at home, but also on where they can spend their free time, how good the schools their children go to, how easy it is to get to a doctor. Many of these points are difficult to change at the level of the authorities of a modern city, but they affect the standard of living and can be studied, if only to improve those aspects of life that can be improved.

The second question detailed various aspects of life that influenced the above assessment. The following were analyzed: safety, education, housing, social infrastructure, development of entrepreneurship, labor market, public transport, health service, culture, civic budget, administration and quality of life of seniors. Education received the highest rating and housing the worst. It is possible that the group of people looking for a flat dominated among the respondents, but in any case, the opinion of the respondents should be respected, even if it is not justified by statistics.

The next issue discussed was social infrastructure, including places such as hospitals, cultural facilities, sports facilities and religious buildings. Interestingly, respondents rated hospitals the best, and cultural facilities the worst. This may indicate better knowledge of hospitals due to visits or therapies than cultural facilities, which are not visited in large numbers.

In the fourth question about the participatory budget, the issue of involvement in socio-political life was hidden, because people who are not familiar with this issue may not know what the participatory budget is or what impact they have on it. However, a significant number of answers allow us to look with hope at the young generation, who are aware of what the budget is and how it affects their lives.

In such studies, one may encounter the accusation that the weakness of the above results is their subjective nature. Here, we measure opinions, i.e. personal beliefs of the city's residents. As you can easily guess, they may be influenced by the experiences of a given person, the opinions of their relatives and friends, the state of knowledge that reaches them through the media, and the ways in which they themselves try to gain knowledge about the situation of their city. The results may be influenced by the propaganda of the people managing the city, the positive or negative message of politicians, which depends on their current situation (they will speak differently about the city if they are in power, and differently if they are seeking this power). On the other hand, the image of a smart city that residents have influences their awareness and the way they use the discussed amenities. If someone does not know that they can use modern transport infrastructure, instead of checking the tram timetable, they will use their own car, because their ingrained beliefs, which they may have expressed in the study, encourage them to make such a decision. If the said transport is rated 2 or 3 on a scale of 0 to 5, it will be easier to follow the established belief. Similarly, if someone is unable to use modern mobile applications that make life easier in a modern metropolis, they will stubbornly stick to analog methods and instead of ordering free transfers in their bank's application (where they can also pay for parking or sign documents remotely), they will stand in line at the post office to pay an additional high commission for the ordered transfer.

Thus, before the eyes of a scientist who studies a modern city, its amenities and imperfections, there appears a research group that, as we assume, speaks honestly and openly about its experiences and expectations related to living in a large concentration of people. It is worth comparing these opinions with the actual state of a modern city. Perhaps many of these intuitions will be true. Certainly, if the opinions differ from the actual state, it is the task of the government to present a true image of the metropolis, and it depends on the interest of the respondents whether they will reach this knowledge.

Summary

The article presents the opinion of residents on the sustainable development of the city based on the goals of the 2030 Agenda, and more precisely on selected four aspects. For the purposes of the article, the third aspect was cited concerning good health and quality of life, the fourth - good quality education, the eighth - economic growth and good work, the ninth - talking about

innovation, industry and infrastructure, and the last cited goal of the agenda, the eleventh - presenting sustainable cities and society.

The research that was conducted aimed at finding out the opinions of residents on sustainable development in their city. The proposed research survey mentioned topics related to selected sustainable development goals. The research results showed the diversity of residents' opinions on living conditions and references to sustainable development. The question regarding the standard of living in the proposed city was assessed as averagely good, the next question regarding various aspects of sustainable development showed the majority of negative opinions. This gives a clear picture showing the residents' dissatisfaction and desire for change. Clear presentation of the respondents' opinions allows for faster reaching the needs they express. Here we see the need for conversation, meetings and social consultations, thanks to such meetings the city has a great chance to react faster and create conditions that society expects. However, citing the results regarding public transport, residents assess it as good, they have no major reservations when it comes to public transport, of course, by opening a larger discussion, it would be possible to propose additional improvements that would certainly affect the better research results. The cultural potential, as well as the availability of apartments and jobs, is assessed dishonourably. In this question, residents expressed their dissatisfaction with the proposed areas, asking about cultural potential, the question was narrowed down significantly, therefore it is impossible to clearly determine the accuracy and nature of culture, we can talk about events, cultural, outdoor events, however, more precise information requires interviews in the city with the society interested in such matters. The condition of infrastructure was assessed moderately, the assessors awarded good marks, however, in the context of the general question, it can be noticed that residents indicate a closer look at infrastructure facilities, they show low marks for sports facilities, which is associated with the advisory vote on this issue from residents, because they know best where an appropriate sports facility is missing. At the moment, there is a strong focus on sports, so a low opinion indicates a lack of such places, or perhaps too long distances from the place of residence to the training place, such difficulties are most often noticed by parents who have to take their children to classes, being very limited in time, either due to lack of means of transport or for professional or economic reasons. The civic budget initiative is quite good. Residents accept this form of opportunity to decide and initiate projects in their city. The participatory budget opens up many possibilities for changes, these are primarily proposals, ideas of the residents themselves, and thus their influence on the development of the city. The conducted research serves as inspiration for conducting further research on sustainable development. The results themselves are not satisfactory and suggest introducing changes. Thanks to the public opinion learned through the online survey, it is possible to suggest many changes in the city being studied, aimed at improving the current situation. The research calls for conducting comprehensive research showing the problems and dissatisfaction of residents, so that the response to difficulties is faster and more efficient in action aimed at improvement. Research

in the form of a survey alone does not provide a full picture of the needs of residents, for this purpose it is necessary to organize meetings to learn about public opinion, conduct conversations and interviews that allow for a closer look at the needs of society and look for opportunities and solutions to implement these changes.

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