MULTI-CRITERIA ASSESSMENT OF PUBLIC SPACE FROM THE SOCIAL PERSPECTIVE

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Abstract

This article raises the issue of assessing assets of urban public space, as a specific example of revitalizing the urban fabric. This subject is so important in that it actually defines the contemporary perception and use of the city, visualizing the forms of human functioning in common urban space which are frequently not directly verbalized and originate rather from a custom or local habit, encourages interaction, but also determines constraints in social accessibility, divides people and stirs conflicts.

The main purpose of the study is to show the possibilities of assessing revitalization projects concerning various types of public space by means of multi-criteria comparison and the relative evaluation of the available action scenarios. The paper offers a thesis that it is possible to carry out effective assessment of public space, which can be applied when making decisions regarding socially desirable directions of revitalization.

Key words: public space, urban revitalization, multi-criteria analysis.

JEL Classification: R30, R58.

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1. Introduction

Public space is of utmost importance in the everyday life of a town's inhabitants, and becomes particularly important during the revitalization of urban fabric (LORENS, MARTYNIUK-PĘCZEK 2010). It is the subject of competition, which various groups of stakeholders sometimes attempt to take hold of. The article presents the results of the analysis of three types of public space (a representative downtown square, a marketplace, and an open residential estate). The resulting valuation models of these types of public space based on multi-criteria analysis methodology take into account the multidimensionality of assessment criteria (such as indicators in social, economic, urban and cultural categories), the dynamics of local property markets, as well as the intensity and profile of the space use. Non-classical (non-linear) development of preferences among public space users is taken into account, thereby bringing the research model closer to the actual reactions of public space users who rarely demonstrate all-or-nothing (zero-one) actions in shaping their decisions, and rather tend to take decisions by evaluating the relative advantage of one type of action over another. What has not before been seen in research on public space revitalization is the differentiation of the function of stakeholder preferences depending on the nature (quantity or quality) of the assessment criterion for such space. For purposes of this article, certain steps have been taken to bring the model closer to the actual perception of reality by humans.

The main objective of this paper is the analysis and assessment of various characteristics of different types of public space from the general social perspective. Detailed goals include determining the level of public "efficiency" (extent to which ideal space characteristics are met) for different types of public space, establishing the effectiveness of their functions, and reflecting the social perception of

their characteristics and overall attractiveness.

The results presented in the article are based on research carried out in Poznań, Gdańsk and Wrocław. They may be treated as a map of the public perception of urban space in revitalization processes, and a hierarchical picture of the social and market attractiveness of such space. In practice, this analysis may prove useful to experts when planning urban revitalization and spatial development.

2. Stakeholder preferences in assessing urban space

Urban space development in revitalization processes requires the collective preferences of those claiming their rights to shape such space to be taken into account. Choosing a satisfactory variant for developing a given part of a town is quite complicated because a lot of competitors, referred to as stakeholders, driven by their own systems of preferences and taking into account different criteria when assessing the surrounding space are involved. Quite often, this leads to an atmosphere of conflict when planning possible scenarios of space revitalization. What is particularly interesting here is modeling human preferences, which are usually not black and white, but often lie somewhere in between. The assessment of the different variants of complex space development projects rather tends to recognize differences non-classically, which translates into the non-linear perception of the relative attractiveness of alternative actions, based on less clear or blurred judgments. It is hard then to establish which space profile clearly satisfies a specific group of stakeholders. As it involves the expression of collective opinions, this situation often becomes an issue of social choice (LISSOWSKI 2001).

When considering the power or intensity of preferences, it is assumed that the subject who compares a pair of variants, x_a and x_b , is not always able to make a choice (incomparability) or scores them the same (indifference). Other situations, where diverse, gradable or continuous preference intensity of variant a over b is present, are also possible. Comparisons made within non-classical models make a reference to the assessment of preferences in order relations. A complete order happens when every alternative can be compared to all of the available options, whereas a partial order occurs when incomparable alternatives are present.

The first step in this kind of decision situation is to calculate the so-called degree of advantage of x_a over x_b for each variant pair of space development, making reference to each of the criteria of their relative assessment. The degrees of advantage are established using functions which describe sensitivity to a change in the value of subsequent criteria of space assessment – they are called the criteria functions of preference assessment. Their shape is determined by stakeholders. In the simplest of situations, the stakeholder sees only two options: a complete preference or indifference (or a lack of preference when assessing variants of space development). In a more complex case of preference modeling, the simple notion of choosing and assessing variants on a zero-one basis is abandoned. This is an example of non-classical preference modeling. Discrete models, which take into account gradable preferences, introduce middle stages between a complete (strong) preference and indifference, thereby showing a stakeholder's growing inclination to the space development variant which, in their opinion, is more beneficial as the differences between variants x_a and x_b increase. The gradation of feelings when expressing preferences is noticeable only in a certain range of x_a advantage over x_b , that is in the area (q_j, p_j) , where q_j is the threshold of equivalence and p_j – the threshold of advantage. When differences between variants do not exceed q_j , the decision-maker treats the proposed space options indifferently. However, when the differences exceed the threshold of equivalence q_j , but at the same time are not higher than the threshold of advantage p_j , the decision-maker's inclination towards one variant, which is more beneficial in their judgment, gradually increases. On the other hand, full conviction of one option's advantage over the other (complete strong preference) is gained by the stakeholder only when the assessment of one of the alternative visions of space differs positively from the another by more than p_j (STACHOWIAK 2002; ŚWITALSKI 2002; KOBRYŃ 2014; TRZASKALIK 2014).

It must be stressed that stakeholders may build different systems of preferences during the multi-criteria choice process and, thereby, different profiles of criteria functions in reference to each criterion of space assessment. Therefore, the identification of criteria functions of preference assessment for each stakeholder actually occurs several times.

For purposes of considerations presented in the article, the research results for preference functions are shown in the following way:

- for quantity criteria – criteria functions expressing a linearly growing preference of one variant over the other, which becomes noticeable with the smallest difference in variant assessment,
- for quality criteria – criteria functions expressing a gradable (discreet) increment of preference of one variant over the other, which becomes noticeable after passing the equivalence threshold, and which turns into a complete preference after passing the threshold of advantage.

3. Multi-criteria analysis in assessment of revitalized urban space

The assessment the resources and characteristics of a town's public space is determined by a number of factors: the location of resources in urban space (downtown/center, residential, uptown), their transportation accessibility (measured by the time necessary to get to a particular place) and attractiveness (measurable and immaterial = immeasurable). This creates the need to assess such specific characteristics and human feelings evoked by public space as, for instance, aesthetics, emotions, mood, expression, situationism, etc. Therefore, consideration should include space measures in order to quantify satisfaction from using the space, social measures (related to the customs, historical awareness, rituals and tradition) and economic measures (investment absorption, investment barriers, the threshold of hostility towards the degree of investment, public space infrastructure, technical advancement and external effects). The tool kit used to assess the situation in space often employs difficult and unpopular (non-typical) assessment categories because it is supposed to produce an objective description of space equipped, by nature, with immeasurable and irrational assets (PALICKI 2013). The complexity of public urban space, related to the number of its users and abundance of variants of space development in revitalization processes, poses a problem with introducing the right criteria to be applied when assessing alternative projects. Moreover, also missing is a proper assessment scale, i.e. accepting an unambiguous methodology of assessing and quantifying scores which may be given when assessing the individual variants. Programming actions concerning urban space revitalization requires consulting intentions with the affected social groups and gathering knowledge regarding their views on the respective items of transformation programs. This kind of information helps to look at the issue knowingly, and notice the multitude of connections or converging interests of stakeholder groups, as well as the conflicts among them. Finally, it will make it possible to distinguish traces of order in the observed set of stakeholders' attitudes and expectations. Such actions allow for the conscious recognition of the consequences of individual variants of action to be perceived by subsequent groups of participants who are going to be, directly or indirectly, affected by the process.

In complicated decision situations, with a rich system of evaluating preferences measured simultaneously by a number of criteria, an interesting tool kit supporting the programming of actions in space includes multi-criteria analysis (BRANS, MARESCHAL 1994; BRANS, VINCKE 1985; BRANS, MARESCHAL, VINCKE 1984, 1986; ŽAK 2005). It is applied every time the decision process requires choosing one variant from a set that is the most preferred in the specific decision context, with each variant being evaluated with a minimum of two criteria simultaneously.

The specifics of multi-criteria analysis make it a useful tool for the *ex ante* assessment of social and economic projects and phenomena in urban space, while taking into account non-classical models of stakeholder preferences. The following advantages can be attributed to multi-criteria analysis over other assessment tools:

- a more complete reflection of the actual multifaceted nature of social and economic phenomena in urban space,
- explaining and facilitating a better understanding of the essence of the decision issue,
- identification of rival/conflict sets of preferences among various stakeholders,
- the possibility of simultaneously using quantity and quality assessment criteria,
- a diagnosis of preference convergence and sources of conflicts among stakeholders, which makes it possible to institute interactive processes of converging attitudes through negotiations, which may even lead to building coalitions of social groups.

4. Research assumptions and input data for the multi-criteria model of assessing urban public space

Assessing public space in the respective research was meant to have a multicriteria nature. The stating of criteria (factors) for assessing public space and its specific types enabled the measurement of their attractiveness level. Following a final discussion and selection of assessment criteria usability, they

were divided into four groups, hereinafter referred to as meta-criteria – economic, social, cultural and urban.

The basic source of information were surveys which covered 910 respondents in three large Polish cities: Gdansk, Poznan and Wroclaw. The data were supplemented with results of on-site observations (divided into three types of public space), surveys among entities running a business in public space, public registers of property value and private databases concerning property transaction prices, data from the Office of Statistics, and expert evaluation of selected urban factors.

Among the 22 researched factors:

- 8 were of an economic nature (economic meta-criterion, E1-E8 factors),
- 6 were of a social nature (social meta-criterion, S1-S6 factors),
- 3 were of a cultural nature (cultural meta-criterion, C1-C3 factors),
- 5 were of an urban nature (urban meta-criterion, U1-U5 factors).

The factors whose values were obtained from the basic questionnaire are an average of the responses to questions regarding the reasons for staying in a specific public space. The responses were designed according to the Likert scale (CARIFIO, PERLA 2007), where the following valuation and wording is offered:

- (1) "this is absolutely the reason",
- (2) "this is rather the reason",
- (3) "this reason is neither important nor unimportant",
- (4) "this is rather not the reason",
- (5) "this is absolutely not the reason".

This provided an opportunity to make a quantitative interpretation of the results (1-5 Likert scale), which was particularly useful in the context of the subsequent construction of collective (group) single-criterion preference functions. The character of the scale was designed as follows: for the factors assessed during the survey process, an arithmetic average of the marks given by all respondents was assumed as a key measure when assessing individual criteria (see Table 1); in the case of the E4 factor, the average unit transaction price for residential properties which were sold in the surveyed areas was calculated; E5 is the average level of the dynamics of the said unit prices from year to year during the analyzed period (2008 – 2012); E6 was based on data from the Office of Statistics; factors S5 and S6 were calculated as arithmetic averages of marks recorded by surveyors, examining the intensity and continuity of using public space throughout the day by means of observation (from 9 am to 9 pm); for factors U4 and U5, the arithmetic average of the marks provided by an expert who assessed selected locations within the researched towns was used.

The arithmetic average, despite its imperfection (distortion of the average by extreme values occurring in the statistical series, incomplete reflection of the nature of certain factors) made it possible to assess the differences between marks received in information ranges – for various types of public space. This was a necessary mathematical procedure from the point of view of multicriteria analysis, supported in further stages of analytical works with the D-sight program, whose usefulness is based on the simultaneous multi-threaded detection of even minute differences in the preference schemes or marks of various types of space. In other words – the use of the median as the basic statistical parameter would result in the sudden flattening (lowered diversity) of the results, and would eventually ruin the conception of the analysis, which is in fact based on the multicriteria analysis of the differences in public space assessment.

The values of the majority of factors were established by surveying the respondents; only a few of the remaining ones required the application of different data acquisition techniques:

- E4 – an analysis of the average level of unit transactional prices in the residential property markets of the three analyzed cities in 2008-2012,
- E5 – an analysis of the average dynamics of the above-mentioned property prices,
- E6 – the usable area of a flat per household member,
- S5 – the intensity of using the public space evaluated during 12-hour observation,
- S6 – continuity of space use understood as a factor evaluating the scale of the diversity/uniformity of public space use intensity throughout the day, established primarily through observations at various times of the day,
- U4 – management aesthetics, which is an expert assessment based on 12 components of the urban quality analysis,

- U5 - management functionality, which is also an expert assessment taking into account 7 components of the urban quality analysis.

The basic goal of the research was to analyze, evaluate and explain the mechanisms of assessing various types of public space. The research referred to three structures of public space - a representative downtown square, a marketplace, and an open residential estate. A model was designed for the assessment of public space by all of its users. It is an attempt to reconstruct a universal key (code) of social assessment, perception and reception of assets in urban public space. It may also serve as a starting point for building models from the perspective of social fractions, which would help differentiate space assessment by various groups of its users. As a result, the types of ideal space for stakeholders could be identified in order to analyze their diversity in depth, which would support processes of urban development under the notion of building social consensus, thereby facilitating social consultations and making them more objective. Such considerations, however, exceed the framework of this paper.

An assumption was made, based on observations of the mechanisms of giving responses by space users, that their criteria functions (ways of evaluating factors which determine space assessment) in the case of quantity characteristics are indiscreet, and differences in evaluating assets of space under various options of its management are perfectly clear to society and individual groups of stakeholders. On the other hand, as far as quality characteristics are concerned, the gradability (step-like nature) of the increment of preferences of one variant over another is reflected - benefits from a preferred variant of space management become noticeable only after passing a certain threshold of variant differentiation (so-called threshold of equivalence), and turn into a full preference after passing another differentiation threshold (threshold of advantage). In this manner, this publication looks into these issues in an original and previously unseen way, while making reference to and supplementing the research outcomes of groups of researchers outlined in the bibliography (Value of public space - a model approach and application in selected towns, project manager: M. Matusiak, participants: M. Nowak, S. Palicki, K. Stachowiak).

Table 1

Valuation of factors describing public space

Factor (criterion) symbol	Factor (criterion) name	Direction (stimulant/destimulant) and range of goal function values	Average factor value	Factor value upon standardization
E1	Space as a place of work	destimulant <1;5>	4.28	0.18
E2	Creates economic and functional custom	destimulant <1;5>	2.80	0.55
E3	Uniqueness/offer of space	destimulant <1;5>	2.57	0.61
E4	Property market prices	stimulant (0;+∞)	5,784 [PLN/m ²]	-
E5	Dynamics of property price fluctuation	stimulant (0;+∞)	0.9867	-
E6	Living area/1 inhabitant	stimulant (0;+∞)	19.7 [m ²]	-
E7	Perception of business attraction	destimulant <1;5>	2.21	0.70
E8	Business stability	stimulant <1;5>	2.92	0.48
S1	Interactivity	destimulant <1;5>	2.96	0.51
S2	Sense of habit	destimulant <1;5>	3.03	0.49
S3	Relaxation	destimulant <1;5>	3.01	0.50
S4	Sense of belonging	destimulant <1;5>	3.05	0.49
S5	Intensity	destimulant <1;5>	3.12	0.47
S6	Continuity	destimulant <1;3>	1.64	0.68
C1	Bringing back memories	destimulant <1;5>	3.09	0.48

C2	Place identity	destimulant <1;5>	3.11	0.47
C3	Attractiveness (beauty of place)	destimulant <1;5>	3.05	0.49
U1	Interesting architecture	destimulant <1;5>	3.32	0.42
U2	Lack of barriers	destimulant <1;5>	2.42	0.65
U3	Subjective assessment of place accessibility (perception of the physical and communicative accessibility of a place)	destimulant <1;5>	2.02	0.75
U4	Management aesthetics	stimulant <1;3>	2.17	0.58
U5	Management functionality	stimulant <1;3>	2.17	0.58

Source: own study.

Table 1 shows the stimulating or destimulating nature of the analyzed factors. For the survey questions, the responses are scaled in the decreasing order of significance of reasons for spending time in the public space (1 – very important reason, 5 – completely unimportant reason). Thus, the factors are treated as destimulants. For all of the remaining criteria, which had the benefit of encouraging the favorable reception of public space, the logic of an increasing grading scale was assumed. Especially here, factors E4, E5 and E6 stand out – their values may theoretically head towards infinity. As regards property prices (E4) and their dynamics (E5), their growth was understood to be a symptom of the increasing valorization of space, similarly to living conditions expressed by usable area per inhabitant of the housing resources situated within the space (E6). In the multi-criteria model, factors E4, E5 and E6 are stable since their values were assumed as averages for all types of space. Therefore, they only have an illustrative value, as opposed to a causative effect on the results of applying further calculation procedures. Nevertheless, their potential changes affect social perception and the tendency to use public space – they affect the number of inhabitants (economically available/unavailable flats) and build the image of the area (luxurious and comfortable, or substandard flats) etc.

Marks awarded to individual component criteria making up meta-criteria, and relativization of the results within meta-criteria (upon standardization, taking into account the directions of the function of the objective) lead to the conclusion that the public space is awarded the highest scores for urban values created within it – average standardized mark of 0.60. The most noticeable among them is accessibility, including the physical and communication values of such space (0.75 upon standardization) and ease accessing it (0.65). High functionality and aesthetics of public space emphasize its attractiveness according to expert evaluation but, interestingly enough, this is not reflected in the social evaluation of architectural values, which falls below the average (0.42).

Puzzling are the moderate marks for social and cultural meta-criteria –0.52 and 0.48 upon standardization respectively. In almost all cases, these factors are evaluated in the average range of marks. Paradoxically, this suggests neutrality in terms of the socio-cultural influence of public space. It seems as though this kind of result might be the effect of a clash between the various models of perceiving different types of public space considered in this analysis.

Observations included fairly strong diversity of marks in the category of economic factors (the average mark upon standardization was 0.50). Business values of the space and its uniqueness (offer) were recognized as the most attractive (0.70 and 0.61 upon standardization respectively). Society notices the uniqueness of economic assets offered by public space; however, it also senses a characteristic lack of alternative or, taking this interpretation even further, a forced customary use of space appears in its perception. Such a specific offer of a place is only possible to obtain in public space. These answers remain in a logical relationship with each other. Public space does not attract society's attention as a place of work. Respondents exhibited the strongest negative reaction to such a suggestion (0.18 upon standardization).

The mean parameters which characterize local residential property markets suggest a high level of economic evaluation within the surveyed period (unit price PLN 5,78), which does not actually result from the structure of the goal function and essence of the model, but merely from the state of knowledge regarding price listings on the second-hand residence market in big Polish cities (NBP, 2014), as well as price stability in time (on average, the annual rate of price changes is a drop of merely 1.33%). As regards the living comfort, it must be noted that 19.7 square meters per inhabitant is

significantly less than the average noted in the entire analyzed cities. This is not, however, a surprising situation, as the inhabitants mostly lived in multi-family resources which, by nature, are characterized by a smaller usable area per inhabitant than for detached houses in less intensively built-up areas.

One can go as far as claiming that the popularity and attractiveness of public space is generated by its urban values, which translates into sensing the economic rarity of such space and uniqueness of its offer. Within the social and cultural context, on the other hand, a neutral picture emerges. Most likely, however, this is an effect of the mechanism of aggregating various types of public space in one analytical model.

5. Assessing urban public space with multi-criteria analysis

In the model of public space assessment, the view of representatives of society as a whole on three types of space defined in this study (representative squares, marketplaces, open residential estates) was analyzed in terms of 22 social, economic, cultural and urban factors. The main purpose was to find the optimal public space among the proposed variants, which could further lead to obtaining clues about the socially desired directions of the city's revitalization.

Fig. 1. Attractiveness of public space per type – degree of criteria fulfillment. *Source:* own study.

Upon considering all assessment criteria simultaneously, the task was to determine the degree of fulfilling the values of ideal urban public space, i.e. a space that would fully meet 22 component criteria – that is the operational goals of such space. The consideration is based on a percentage scale (degree of criteria fulfillment, from 0 to 100%, identified by the D-sight program based on the PROMETHEE multi-criteria analysis method) by examining the resultant marks of the three types of public space defined in the analysis.

The area of central, representative squares best fulfils its public functions, achieving a high score of 69.10% (Fig. 1). This positive mark probably results from the lack of other equally universal and socially desirable public spaces in Polish towns. It is a manifestation of a certain universal code of perceiving the attractiveness and importance of central squares against other types of public space. Open residential areas scored 45.74%, whereas marketplaces – as low as 35.16%. It must be stressed here that these scores take into account the resultant of the component marks; therefore, it is worth taking a look at the components which make up this synthetic assessment (Fig. 2).

Public space in the form of representative squares dominates over the other types of space in the majority of component criteria. Only in the case of creating a sense of habit, continuity of use, business stability and accessibility does such space, in the perception of its users, rank lower than marketplaces and open residential areas. The results are not surprising. The central town square is, by nature, used on special occasions – meetings, tours, mass public events, specifically planned trips. It is also not uncommon for this "point" in public space to be used indirectly, somewhat "on the way" (it is a space which is entered and left – not the target of a walking trip, and only due to its central location do individuals frequently happen to pass through it).

What is particularly interesting is the power of evoking social habits (meeting neighbors and friends) and lack of barriers standing in the way of using open residential areas (their egalitarian nature) – these are, no doubt, the two biggest assets of such space.

On the other hand, the stability of running a business and accessibility are the key characteristics of marketplaces. Such results indicate that marketplaces are in fact rooted in social awareness, and

coincidentally the perception of consistency in their commercial offer.

Fig. 2. Degree in which the attractiveness criteria of public space are fulfilled (per type of space).
Source: own study (graphics – D-sight program).

Fig. 3. Attractiveness of central, representative squares as public space – meta-criteria fulfillment indicators. Source: own study.

In the case of representative squares (Fig. 3), cultural, economic and social values turn out to be the most significant (75.00, 70.14 and 68.75% fulfillment of meta-criteria, respectively). In a slightly smaller extent, this space fulfills urban functions (62.50%). A central, representative square in a Polish town is closest to the social notion of an ideal public space; it is associated with such and fulfills its purpose in

a versatile manner – all meta-criteria met on a high level. Within this central urban area, its users see, above all, cultural values, followed by economic and social ones, on almost equal terms. It is a unique space of high awareness and culture-forming significance, a beautiful venue which attracts users, including those interested in its business offer.

As regards marketplaces, it is hard to talk about a high absolute evaluation of any of the meta-criteria (Fig. 4). The highest score, i.e. 50.65%, was given to economic criteria, which is in line with the primary function of a marketplace. According to the general social evaluation, these assets are not as clear as in the case of central squares. The other marks received by marketplaces are rather low, between 25 and 40%. Thus, this is not a space which would function in social awareness as a typical urban public space, and cannot compete with the central representative square. The research shows that, from the point of view of contemporary society, marketplaces are not an important component of urban space.

Fig. 4. Attractiveness of marketplaces as public space – meta-criteria fulfillment indicators. *Source:* own study.

Fig. 5. Attractiveness of residential open space as public space – meta-criteria fulfillment indicators. *Source:* own study.

Open residential areas are characterized by moderate social, cultural and urban assets (56.25; 50.00 and 47.50% respectively) – see Fig. 5. Here, economic assets (29.21%) go almost unnoticed, which confirms their generally strictly non-commercial nature. In social awareness, residential space is not associated with paid services or business activity, or new jobs. The reconstruction of social perception points clearly to their socializing and cultural importance (meeting place, including short, incidental meetings, such as in the case of neighborly relations) realized in urban conditions that encourage interpersonal relations (small architecture, accessibility of the area, aesthetics and functionality). What is characteristic of open residential space in terms of social, cultural and urban meta-criteria, is that it is perceived as much more attractive than marketplaces. Although open residential areas are not necessarily the most interesting (quite far from the ideal type), they are, nevertheless, an important (as they are present in the awareness of users) component of urban space.

6. Summary

Determining the degree of preference and possibility of accepting alternative conceptions of

revitalizing public areas by society is a significant element of the process of assessing public urban space. First of all, it requires an accurate diagnosis of the situation and defining those assets of space which are particularly valuable and desired. Then, during the process of relational pair comparison, under the multi-criteria assessment of public space revitalization variants, it is possible to identify a direction of action which ensures the most beneficial level of fulfilling social expectations. Another advantage of the multi-criteria analysis is the indication of the dominating values of various types of space, which help them to effectively serve various functions. This facilitates designing good public space in revitalization processes, as it raises awareness of the social effects which may be expected upon implementing specific changes.

The results of the study lead to the conclusion that the overall social assessment of the attractiveness of public space shows a clear preference in favor of central, representative squares. These best serve their public functions by achieving a high level of attainment for all (social, economic, cultural and urban) criteria, equal to 69.10%. This outcome brings the space closer to the theoretical concept of ideal public space (in the case of ideal public space, all criteria present in the analysis would be 100% fulfilled, resulting in absolute, full "efficiency" of public space). Open residential areas achieved 45.74%, whereas marketplaces - merely 35.16%.

The fact that urban assets received the highest scores in the overall assessment of public space is particularly interesting. Marks for social and cultural meta-criteria were lower, which upset the paradigm commonly propagated in public discussions of viewing public space as generating exclusively social values. An important general conclusion is also that the quality of public space in large Polish cities is, at the very most, average.

It seems that contemporary society expects the presence of highly-efficient space, which is comprehensively developed and universally good when considering all of the possible assessment categories. Therefore, it is necessary to recognize the appeal and society's right to avoid the plainness and repeatability, the poor quality of space. Inhabitants of Polish towns have grown to express high expectations regarding important locations functioning in their collective consciousness. Space is not only supposed to be attractive in the aesthetic sense, but also provide social satisfaction (a meeting place, well-prepared in terms of infrastructure, attractive enough) and cultural values (a wide range of sophisticated cultural services), accompanied by interesting economic values (an offer of products and commercial services in the framework of a so-called "urban product"). Revitalization processes need to create versatile space which is ready to meet the expectations of its increasingly demanding users.

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