

Article

The Importance of Stakeholders in Managing a Safe City

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Abstract: Contemporary cities are complex systems in which there are many interactions and dependencies in relation to the environment. Currently, the development of cities and their safety are among the most important international socio-economic processes. The movement of people to larger agglomerations from smaller towns creates a variety of relationships between actors and often leads to very complicated lives in urban space. Features of contemporary cities include urbanization, personal development opportunities, labor markets, and infrastructure, as well as technological and cybernetic networks that optimize all the processes taking place in agglomerations. It should be emphasized that the main goal of public management in urban space is to create various solutions in the field of safety and thus to improve the quality of. In this respect, the role and influence of stakeholders on the processes of smart and safe city development are important. At each stage of activity, the City Council, local communities, economic entities, scientific institutions, and municipal enterprises are important for a city's safety. This article emphasizes the importance of stakeholders in the process of managing a safe city. The article presents a literature review, as well as research results based on the example of Polish cities, presenting the importance of stakeholders in managing safe cities.

Keywords: stakeholders; safe and smart city; public management; security of inhabitants



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1. Introduction

It is particularly important to point out that contemporary cities face different challenges in achieving goals related to socio-economic development, safety, and quality of life [1]. It should also be stated that the increasing rate of crime during the pandemic has created challenges in achieving safe development within cities. What is more, cities are complex systems comprising multiple interactions and interrelations among between different groups of stakeholders [2–5]. In building the image of a safe city, institutions face certain challenges and threats from their surroundings. According to many authors, who have examined the characteristics of smart cities, the most important elements are the identification of stakeholders, the acquisition of resources, the identification of priorities, the creation of policies conducive to the cities' development, the use of technology, and also the creation of security in every area. The transformation of a dangerous city into a safe one involves the interaction of political, institutional, and social elements, as well as technological factors, which indicates the fundamental importance of each stakeholder group and their involvement in contributing to the safety and success of the city.

The literature on both smart and safe cities highlights the fact that the role of stakeholders, both public and private, involved in the process of city development, is invaluable [3–7]. Moreover, it is often stated that it is the city's stakeholders who are often seen as creative partners in planning and implementing the “smart and safe” city [8–11]. Therefore, in this

research article, the objectives are (I) defining a safe city and the concept of stakeholders, (II) identifying the city's stakeholders, and (III) analyzing the actions that should be taken to create a safe city; however, the article presents only a part of the research on developing an approach to stakeholder involvement in managing a safe city.

2. Literature Review

A comprehensive literature survey was carried out to identify the concept of stakeholders and safe city issues, based on the Web of Science, Scopus, and Google Scholar databases, as of 12 September 2021. Records for the survey were generated by entering search terms into e-databases, related to the purpose of the research (Table 1). In the case of the Web of Science database, due to the generation of a very large number of records, additional filters were applied, which limited the search results to publications in the following areas: management, social sciences, public administration, multidisciplinary sciences, and political science. The results of the Scopus search were limited to social sciences, business, management, and accounting publications. In the case of the Google Scholar database, the search results were sorted by relevance, and a literature search was fully completed.

Table 1. Web of Science, Scopus, and Google Scholar search results with numbers of all publications for the selected terms.

Search Term	Web of Science	Scopus	Google Scholar
Safe city	26,179 (966)	11,336 (3128)	3,850,000
Stakeholders in the city	13,703 (1519)	10,480 (5554)	1,440,000
Security of habitants	29 (5)	32 (10)	64,000

Source: own work.

To summarize the review of the literature, no publication devoted entirely to the analyzed topic was found. In the course of the conducted analyses, however, publications were found which partly refer to the subject under investigation from the point of view of the social sciences, including safety sciences and management. However, it is worth paying attention to the publication of Rozario et al. [12], in which the authors presented a literature review on the smart city from a holistic perspective.

2.1. Definitions of a Safe City

Today, urban planning and safety work have become closely intertwined [13]. The concept of the safe city appears in the literature; however, this concept is not analyzed as often as the smart city concept. In some publications, the concept of the safe city is treated as one of the systems that make up the smart city [6,14]. However, some researchers have come to the conclusion that this narrows the issue and that it needs to be expanded. They argue that the safe city should be treated as equivalent to the smart city, with the two concepts being intertwined.

While the subjects of research interest on smart cities include using modern technologies to improve residents' quality of life, increasing the efficiency of city management, improving the quality of provided urban services, and increasing the city's competitiveness [1,15–17], the safe city concept covers issues related to the provision of civil protection, property, the environment, and infrastructure. It should be noted, however, that actions to create safe urban space not only use modern technologies but also older solutions that may prove useful [8].

Often, most works on safe cities only refers to crime reduction issues, e.g., reduction in murder or rape [18–20]. One of the most reliable indicator of a safe city is the number of murders per 100,000 inhabitants (for example lists drawn up by the United Nations Office on Drugs and Crime). Meanwhile, today, urban safety is a result of many complex factors. These include a lack of opportunities, widening inequity, territorial segregation, economic polarization, poor urban planning, and social exclusion, as well as drugs, guns, organized crime, and poor crime prevention [21].

As Gaspar Viegas points out, a senior director at Alcatel-Lucent specializing in public safety: “If you think about safety only in terms of reducing crime, that doesn’t necessarily mean that the city will be kept safe. For example, you can look at casualties from poor traffic management and auto accidents. It’s also about the level of pollution in a city. This is how a safe city should be analyzed” [22]. Concepts of the safe city include a wide range of aspects and activities linked to public spaces, from crime prevention to physical protection of the environment, to accessibility, and to institutional and organizational aspects [23]. Ristvej, Lacinák, and Ondrejka (2020) propose that the concept of the safe city should include the following components: intelligent safety technologies for surveillance, search, detection, and identification; healthcare; relevant data and centers for data processing to administer the city’s cloud; methodology of activities; informational and cybernetic safety; design; intelligent technologies of crisis management to support decision making, provide early warnings, and to monitor and forecast emergencies and environmental situations; security components of individual systems in the safe city; and centrally managed technologies for police and integrated rescue systems [8].

The complexity of urban safety issues can also be seen in the number of factors that are taken into account when creating an index of safe cities. The list is based on 57 indicators grouped into four blocks: digital security, infrastructure security, health security, and personal security. Tokyo, Singapore, Osaka, Amsterdam, and Sydney [24] were considered the safest cities in 2019. This situation changed in 2021 [25]. Table 2 presents a list of the safest cities by block.

Table 2. The safest cities in 2019 and 2021.

Overall Score		Digital Security		Health Security		Infrastructure Security		Personal Security	
2019									
1.	Tokyo	1.	Tokyo	1.	Osaka	1.	Singapore	1.	Singapore
2.	Singapore	2.	Singapore	2.	Tokyo	2.	Osaka	2.	Copenhagen
3.	Osaka	3.	Chicago	3.	Seoul	3.	Barcelona	3.	Hong Kong
4.	Amsterdam	4.	Washington, DC	4.	Amsterdam/ Stockholm	4.	Tokyo	4.	Tokyo
5.	Sydney	5.	Los Angeles/ San Francisco			5.	Madrid	5.	Wellington
2021									
1.	Copenhagen	1.	Sydney	1.	Tokyo	1.	Hong Kong	1.	Copenhagen
2.	Toronto	2.	Singapore	2.	Singapore	2.	Singapore	2.	Amsterdam
3.	Singapore	3.	Copenhagen	3.	Hong Kong	3.	Copenhagen	3.	Frankfurt
4.	Sydney	4.	Los Angeles/ San Francisco	4.	Melbourne	4.	Toronto	4.	Stockholm
5.	Tokyo			5.	Osaka	5.	Tokyo	5.	Brussels ¹

¹ Source: based on Safe Cities Index 2019 and Safe Cities Index 2021.

Ensuring a safe urban space is a condition for the life and work of a city’s inhabitants, the protection of their rights and freedoms, and the effective functioning of the economy, urban space, transport, and communications. All the key stakeholders in cities (police, fire/medical emergency services, city government, homeland security, transit, and utilities) should provide an effective safety or security response to any situation affecting their citizens or organizations [26].

To sum up, in this article, the concept of a safe city should be understood as a city that is focused on increasing the level of security and improving the quality of life of its inhabitants, using both innovative and traditional tools and cooperation with stakeholders, especially in the areas of digital security, infrastructure security, health, security, and personal security. According to the authors safe city stakeholders are all entities (people, communities, institutions, organizations, offices) that can influence this city or a specific project implemented in it through their rights, obligations or interests.

2.2. Stakeholders—A Description and Roles

The term stakeholder comes from the English word *stake*, which is often translated as input, participation in an interest, or involvement in an aspect of an activity. The term also refers to the risk incurred, but also to cooperation, need and claim, demand, requirement, knowledge, expectation, or the legitimacy of demanding a certain commitment [27,28].

One can find references from the 1950s in the literature on the subject. The concept of the stakeholder theory can be understood as the fact that companies are responsible not only for the interests of shareholders, but also for their employees, customers, and society [29]. Merriam-Webster's Dictionary presents a definition from the 19th century which defines a stakeholder as a person who holds the stakes in bets on various games, while the use of the word stakeholder in financial literature began in the middle of the 20th century [30,31].

However, it is accepted that the contemporary concept of stakeholders was first used in 1963 by the Stanford Research Institute (now called SRI International), which defined stakeholders as "groups without whose support an organization could not exist".

Referring to an internal SRI memo, Ansoff (1965) [32] highlighted the issue of corporate responsibility towards stakeholders, defining the concept of stakeholder management as a method of balancing claims by different stakeholder groups. Moreover, Ansoff recognized Abrams' (1954) [29], as well as Cyert and March's (1963) [33], views on stakeholders and their goals, but rejected the theory in favor of a view that divided goals into the "economic" and "social". A "stakeholder" refers to one who has an interest and, according to Freeman and Reed (1983) [34] and Argandoña (1998) [35], the term refers to "all those who have an interest in the organization (so that the company, in turn, can have an interest in satisfying their satisfaction and requirements)". However, it also includes those who have an interest, according to Rhenman (1968) and Frederick (1998) [36,37]: "all those who belong to an environment that is interested in what the organization does".

In the literature, other researchers indicate additional characteristics of stakeholders; e.g., they should be treated as strictly external groups to the organization, which is part of an environment to which specific risk weights are assigned [28,38–40]. Moreover, Slatter underlines in his research that all stakeholder groups generate both risks and benefits, so it is important to identify risks [38,40]. Table 3 presents a chronological list of stakeholder definitions presented in the literature. The table catalogues the best-known stakeholder terms, including the 1984 Freeman [41] definition, which has been adopted by many other scientists. Different authors adopt different definitions to create an interdisciplinary debate and encourage others to perform their own research.

Table 3. Chronological list of stakeholder definitions presented in the literature on the subject in business and public sector.

No.	Date	Author	Definition
1.	1951	Abrams	The basic responsibilities of management derive from general obligations to maintain a fair and workable balance between the claims of the various groups concerned [29].
2.	1952	Silbert	First use of the word stakeholder in the context of finance and factoring [30].
3.	1959	Penrose	Defining the nature of the organization in the form of human collections and contacts between participants and stakeholders [31].
4.	1963	Stanford Research Institute	Groups without whose support the organization could not exist (Stanford Research Institute 1963).

Table 3. Cont.

No.	Date	Author	Definition
5.	1965	Ansoff	The organization's objectives should be determined by balancing the conflicting claims of the various "stakeholders" of the company. The organization has obligations to all these actors and must configure its objectives in this way to give everyone a degree of satisfaction [32].
6.	1983	Freeman and Reed	In the broad sense: they can influence the achievement of the organization's objectives for those affected by the achievement of the organization's objectives; in the narrow sense: those on which the organization's continued existence depends [34].
7.	1984	Freeman	They may influence or be influenced by the achievement of the organization's goals [41].
8.	1991	Miller and Lewis	Stakeholders are people who can help or harm the organization [42].
9.	1993	Brenner	Entities with a legitimate, relevant relationship with the organization, such as exchange transactions and influence on activities and moral responsibility [43]
10.		Starik	Naturally occurring entities that are influenced or influenced by the organization's performance [44]
12.	1994	Clarkson	They carry some form of risk as a result of investing some kind of capital, human, or financial or bear the risk as a result of the company's actions [45].
13.		Mahoney	Passive stakeholders who have moral claims against the organization relating to non-violation and non-infringement and active stakeholders whose claims are more social [46].
14.	1995	Blair	All parties who have contributed to the company and who, as a result, have risky investments and are highly specialized in the company [47].
15.		Donaldson and Preston	Persons having direct or implied contracts with the company. Identified by actual or potential damages and benefits they experience or expect to experience as a result of the company's actions or their own interactions with the company [48].
16.		Mitchell, Agle, and Wood	Legitimate or urgent claim against the company or authority to influence the company, voluntary members of the cooperation scheme for mutual benefit, [. . .] partners seeking a mutual advantage. A claim (standard) can only be justified if it can be approved by all those affected by the standard [49].
17.	1998	Argandoña	All those who have an interest in the company (so that the company in turn may have an interest in meeting their requirements) [35].
18.		Frederick	All members of a community that are interested in what the organization does [37].
19.	1999	Clarkson Centre for Business Ethics	Interested parties: they bear certain risks and may therefore gain or lose something as a result of the company's activities [50].
20.	2000	Gibson	Groups and persons, with whom the organization has relations or interdependencies, and any person or group that may influence or be influenced by actions or decisions, a politician, and the organization's practices or objectives [51].

Table 3. Cont.

No.	Date	Author	Definition
21.	2001	Hendry	Entities in relationships based on moral considerations [...] Relationships that cannot be reduced to contractual or economic relationships alone. They include social features such as interdependence [52].
22.		Orts and Strudler	Business participants with some kind of economic contribution that is subject to risk [53].
23.	2003	Phillips	Normative stakeholders: those for whose benefit the company should be managed. Torch Stakeholders: they can potentially influence the organization and its normative stakeholders [54].
24.	2004	Boddy and Paton	Stakeholders are individuals, groups, or institutions with an interest in the project and who may influence its outcome [55].
25.	2005	Andersen	Person or group of persons affected or likely to be affected by the project [56].
26.	2006	Bourne and Walker	Stakeholders are individuals or groups who have an interest or some aspect of rights or ownership in a project and can contribute to or influence the results of the project [57].
27.	2007	Olander	A person or group of persons who are interested in the success of the project and the environment in which the project operates [58].
28.	2008	Walker, Bourne and Rowlinson	Stakeholders are individuals or groups who have an interest, ownership, or some kind of rights towards the project and may contribute to or be influenced by the project [59].
29.	2009	Couillard, Garon and Riznic	Entities or persons who are or will be influenced directly or indirectly by the organization [60].
30.		Bourne	Individuals or groups that are or that may be affected by the work or its results at this particular point in the organization's life cycle [27].
31.	2013	Bogdanienko and Piotrowski	The organization's stakeholders are significant individuals, interest (pressure) groups, coalitions, or organizations that have their own interests in the functioning of a particular organization and can influence it [61].
32.	2016	Szwajca	The author defines stakeholders as individuals or groups that may influence or be influenced by various activities that affect the reputation of the organization [62].
33.	2017	Project Management Institute	People, groups, and organizations that may influence or be influenced by the decision, action, or outcome of the project [63]

Source: based on the aforementioned literature.

It should be noted that there is a consensus in the literature on the definition of the concept of stakeholders [48], but there is still an ongoing discussion among management theorists and practitioners about who is and who is not a stakeholder, about their actual or potential impact on the organization, and their deviation [64]. Traditionally, internal stakeholders (e.g., staff, management) are most often differentiated from external stakeholders (e.g., customers, suppliers), thereby representing conflicting objectives [65]. Different studies and interpretations have evidenced the many divisions and categories of stakeholders.

Various approaches are used in the process of developing the division and description of stakeholders:

- Classification of stakeholders based on the strength of influence, legitimacy, and legitimacy of the relationship with the organization and urgency of the request [49,62];
- Systematization of stakeholders' expectations based on the hierarchy of values and Key Performance Areas (KPA) [66];
- Distribution of stakeholders according to potential threat or willingness to cooperate [67];
- Assessment of the awareness, support, and influence of leading stakeholders on communication strategy and evaluation of stakeholder satisfaction [68];
- Stakeholder analysis as an assessment of the actual rather than the formal power arrangement, related to the management of the company or to the management of the project and its environment [69,70];
- Determining stakeholder identification, evaluation, and engagement [28,71];
- Stakeholder Circle method, which is a multi-dimensional map showing stakeholder proximity to the project, degree of impact strength, scale and scope of impact, or a three-dimensional stakeholder cube defining the profile of involvement of all groups in the project [27,72];
- A method of stakeholder classification due to the complexity of several factors, such as the probability of response, the strength of the impact, the strength of the interest, the risks incurred, or the position of commitment taken [27,62].

Analyzing all the divisions of stakeholders present in the literature, it can be observed that the process of adaptation of organizations, such as cities, to changes in the market is one of the most important aspects of activity. Under the conditions of a crisis, it is essential to take into account the involvement and benefits of stakeholders and build loyalty relationships with them in the local environment, which can be helpful in creating security in the city. To sum up, without this cooperation, long-term development and cooperation based on safety is not possible; therefore, very often, the value of the city is determined by the proper choice of sources creating value and influence, the involvement of stakeholders, and the proper management of relations with them.

A distribution of stakeholders by their level of influence and level of involvement in the organization is presented in Table 4. It is worth noting that the level of engagement and the level of impact on security, and thus the resulting results, are different for each interest group [73].

Table 4. Characterization of the stakeholders in an organization (in terms of impact and commitment to creating a safe organization).

Stakeholders with primary impact and direct involvement (key)	
1. Internal and close to them (directly related to the tasks of the company)	Owners, shareholders, management, authorities, employees and their families, former employees, pensioners, applicants, apprentices, members of informal groups in the company, proxies, advisors, supervisory boards, works councils/employee organizations, members in member organizations, and their democratic bodies/authorities.
2. External (more or less directly related to the tasks of the company in question)	Shareholders, members of co-ownership bodies, persons with influence over co-owners, representation of members in the bodies of associations, competitors/industry and non-industry opponents (e.g., those operating in the same labor, capital, know-how, opinion, value, or idea markets), ad hoc competitors, sales representatives and/or other sales and supply intermediaries, development funds, strategic (business) partners, customers/buyers/receivers/users/consumers, cooperatives, their members and associations, banks and other financial institutions, dealers, brokers, lobbying organizations, consulting companies, consumer organizations, employee organizations, trade unions, employers' associations, other industry and professional communities and business agreements, business associations, advertising, marketing, and public relations agencies, members of social and professional organizations.

Table 4. Cont.

Second-level stakeholders with indirect (supporting) involvement	
Environment of the so-called “Arcade”: general authorities at various levels and regulatory institutions in the economy and social life	Governmental and state bodies, their agendas and members, including members of local government bodies, members of parliament, senators and other politicians acting within the state bodies, various levels of decision-makers/state bodies in the field of social, political, economic, and cultural life and the executors of their policies and decisions among other organizations/regulatory bodies active in the labor and financial markets, ministries relevant to social policy, dialogue bodies of state institutions, financial institutions, fiduciary offices, judicial authorities, consumer/government ombudsmen with interest groups, state employment offices, tax and customs services.
Stakeholders with further degrees of impact and further involvement (marginal)	
1. Opinion formers/Environmental opinions	Mass media, journalists, journalists’ organizations, editorial offices, correspondents (including foreign ones), editorial offices of company (company) newspapers, press departments of institutions and companies from the local environment, universities and their authorities, students and their representations, university promotion departments, alumni associations, employers’ and alumni councils, leaders of views and opinions originating from various areas of public life, influential representatives of cultural, educational, political, and religious institutions, creative associations, the audience of influential media, guests visiting companies.
2. Citizens’ initiatives and similar	Non-governmental organizations protecting the environment, civil liberties, and rights, consumer associations, other grassroots institutions of public life, societies working to solve social and health problems, environmental organizations, etc.
3. Corporate and international environment	Diplomatic representations, diplomats, consular departments of embassies, representations of foreign organizations and authorities, affiliations of international organizations. ¹

¹ Source: own work, based on: [27,28,62,74].

With reference to the key stakeholders in creating a safe city, it should be noted that several types of security for its residents should be secured—primarily digital security, infrastructure security, health security, and personal security. Therefore, it is important to know which leaders have been chosen by the citizens, whether these leaders are supported by specific political parties and city councils, whether the law is enforced by bodies that do not abuse their power, whether people working in offices are competent, whether the information technology used is safe for everyone, and what actions are taken by managers in cooperation with stakeholders in the policies for creating a safe city.

3. Research Section

3.1. Methodology

The scope of the study was concerned with the extent to which stakeholders shape the safe city space. The study covered large- and medium-sized cities in Poland. As of December 31, 2018, there were 218 medium and large cities in Poland, containing 47.1% of the population (Table 5). In total, 80 cities agreed to participate in the survey, which constitutes 36.7% of all big- and medium-sized towns in Poland [75].

Table 5. Medium and large cities in Poland (as of 31 December 2018).

Population	City Class	Number of Cities	Population in Cities (in Thous.)	% of the Total Population
20,000–49,999	IV	134	4246.6	11.1
50,000–99,999	V	46	3116.4	8.1
100,000–199,999	VI	22	3057.4	8.0
200,000 and more	VII	16	7648.1	19.9 ¹

¹ Source: own work.

At the initial stage of the research, the main research problem was formulated in the form of the following question: which stakeholders shape the safe city space and to what extent do they shape it? In order to answer this question, the following specific problems were formulated: (1) What is the impact of the various stakeholders on shaping a safe city? (2) Which challenges have the highest priority in creating a safe urban space?

At the initial stage of the research, a working hypothesis was formulated in the form of the assumption that cities, when shaping creative and safe spaces, undertake a number of activities in the field of broadly understood security, especially in the field of environmental protection, transport, and public safety.

The research was conducted using quantitative and qualitative research methods. The data for analysis were obtained using the diagnostic survey method (CATI method) using a survey technique. The study was conducted in December 2019. Correlations were calculated on the basis of Pearson's chi-square factor.

Theoretical research methods were also used in order to respond to the research problems. The methods of analysis and synthesis were mainly used during the critical analysis of the literature on the subject. They were used to determine the regularity of projects undertaken to shape creative and intelligent city spaces with regard to safety. Abstracting, however, has made it possible to eliminate less important features and dependencies in the scope of the examined issue, as well as to indicate certain dependencies or to consider certain features as important.

3.2. Limitations of the Research

The method of generalization made it possible to reveal features and repetitive phenomena of a general nature, while also allowing the researchers to draw conclusions. The study should also indicate its own limitations. The survey only provided general knowledge about which stakeholders create a safe city space and the extent to which they do so. The research idea was to carry out the survey in medium and large cities located in all voivodships in Poland, which ultimately failed because none of the cities located in Lubuskie voivodship took part in the survey; however, all the questionnaires were filled in flawlessly. One of the possible limitations of the review of the literature from the databases was the lack of an opportunity to review all publications related to safe cities terms and the process of engagement of stakeholders in their management. Therefore, we focused on selected items, which were, in our opinion, the most relevant to the topic of the article.

3.3. Characteristics of Respondents

In total, 80 representatives of medium and large cities in Poland took part in the survey, of which 42 were class IV cities (20,000–49,999 inhabitants), 21 were class V cities (50,000–99,999 inhabitants), 11 were class VI cities (100,000–199,999 inhabitants), and 6 were class VII cities (200,000 or more inhabitants). The dominant group, therefore, contained representatives of medium-sized cities.

Most of the analyzed cities (37) have an industrial and service function. Fifteen cities have an industrial function, and ten cities have a service function. The recreational and tourist function is performed by nine cities, and the commercial function by two cities. Religious worship is the main function for one city. The remaining cities have spa, service and tourist, settlement, industrial and tourist, trade and service, or agricultural and service functions (Table 6).

Table 6. City function dominant type of activity.

City Function	Medium Cities		Large Cities	
	20,000–49,999	50,000–99,999	100,000–199,999	200,000 and more
Industrial	11	3	1	0
Commercial	0	2	0	0
Service	6	2	1	1
Recreational and tourist	6	2	0	1
Industrial and service	15	10	8	4
Religious worship	0	1	0	0
Other	4	1	1	0 ¹

¹ Source: own work.

As previously mentioned, the survey was completed by representatives of 80 medium and large cities in Poland. The vast majority of the respondents held the position of manager or functional head (75 people). The survey was also completed by two representatives of the city's executive body and three secretaries (all of whom were representatives of a medium-sized city). None of the subjects were treasurers.

3.4. Results

During the survey, the representatives of medium and large cities in Poland were asked the following: what is the impact of particular stakeholders on shaping and managing a safe city, on a scale from 0 to 5? On the basis of the answers received, the stakeholders were divided into five groups according to their level of influence on shaping a safe city (Table 7).

The conducted research indicates that the greatest impact on the creation of safe space in medium and large cities belonged to the managerial staff in local government executive bodies. Institutional stakeholders, the City Council (the acting body), investors, and the local community also play an important role in this respect. It is especially worth noting the last entity. The local community can shape the space it lives in to make it safer. Thanks to involved citizens, management can make more informed decisions about investing in projects that will increase the city's security and, consequently, have a positive impact on the residents' sense of security.

The respondents indicated the Church, companies offering insurance services, outsourcing companies, training companies, and rating companies among the stakeholders that have little influence on shaping safe urban space. The level of influence of the other identified stakeholders was determined by the respondents as average. It is worth noting that, although the respondents had the opportunity to identify other stakeholders who may have had an impact on shaping safe urban space, none of them took advantage of this. During the survey, the respondents were asked which of these challenges have the highest priority of importance when creating a safe urban space. The proposed challenges were divided into four groups, according to the assumptions adopted in the Safe Cities Index 2019: digital security, infrastructure security, health security, and personal security (Table 8).

Table 7. Division of stakeholders according to the level of their influence on creating a safe urban space.

Advisory Level of influence and relevance of stakeholders	Marginal stakeholders (low impact) 1. 26–2.50	Church
		Companies offering insurance services
		Outsourcing companies (e.g., cleaning, property protection)
		Training companies
		Rating companies (companies forming local government ratings)
	Supporting stakeholders (average impact) 2. 51–3.75	Individual stakeholders
		Inspection (PIP, Sanitary, Tax Office, etc.)
		Administrative staff
		Product suppliers
		Banks and financial institutions
		Contractors (service subcontractors)
		Advisory consulting
		Accreditation and certification bodies
		Sponsors
		Local industry associations
		Local politicians
		Local media (press, radio, and television)
		Social media (blogs, web portals, etc.)
		Local business
		Institutions neighboring local government units
		Associations and foundations
		Intermediate institutions in obtaining EU funds
		Companies helping to obtain grants from various funds
		Partner cities
	Key stakeholders (high impact) 3. 76–4.51	Institutional stakeholders
		City Council
		Investors
		Local community
		Managing staff (city president, mayor)

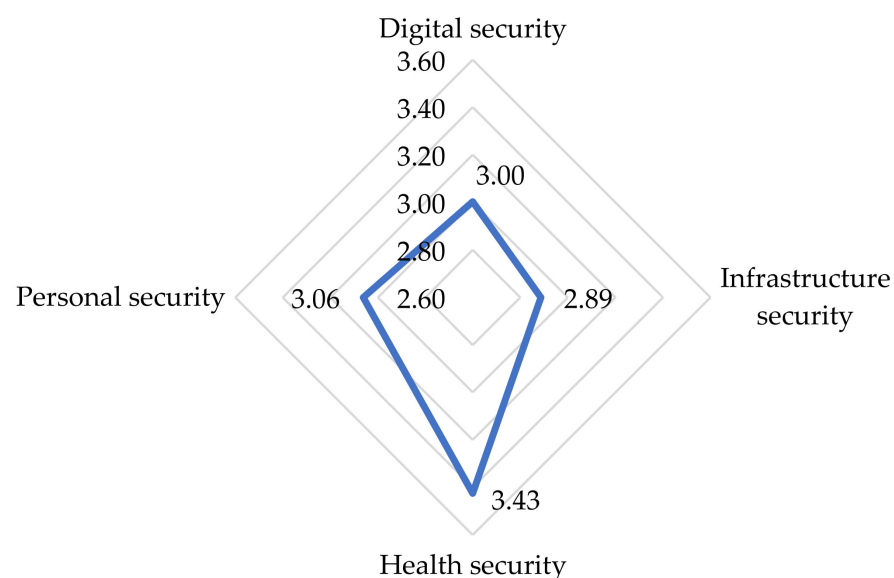
Source: own work.

Table 8. Challenges in the process of creating a safe urban space.

Digital security	1.	Information deficiency
	2.	Technology deficiency
	3.	Economic vulnerability and lack of competitiveness
	4.	Low level of digital skills
Infrastructure security	1.	Information deficiency
	2.	Inequality of access to opportunities and resources
	3.	High infrastructure deficit
	4.	Lack of diversification in the urban economy
	5.	Lack of accessible and affordable public transport
	6.	Restriction of growth in private car ownership and use
	7.	Very fast urbanization
	8.	Inefficient management of resources
Health security	1.	Pollution
	2.	Social and health services deficit
Personal security	1.	Low urban institutional potential
	2.	Gap between government and society
	3.	Lack of quality in neighborhoods and public spaces
	4.	Threats to cultural identity
	5.	Urban violence and insecurity
	6.	Lack of accessible leisure facilities
	7.	Lack of awareness, commitment, and participation

Source: own work.

The analysis of the acquired data justifies the statement that health security challenges have the highest priority among the selected groups of challenges when creating a safe urban space, as presented in Figure 1. In relation to the conducted research, the averages of the responses on a scale of 1–5 in relation to the identified security challenges is presented as follows: infrastructure (2.89), digital (3.00), personal (3.06), and health security (3.43).

**Figure 1.** A challenge comparison overview. Source: own work.

Among the challenges for digital security (Figure 2), the respondents indicated the lack of access to information as the challenge of greatest priority. Such a deficit occurs due to limited accessibility for citizens, resulting from the lack of dissemination of information by the government, as well as communication deficits at the government level and among government institutions. Secondly, according to the respondents, measures should be taken to reduce the shortage of access to technology. In this respect, it is necessary to improve access to new technologies, in particular ICT, as well as to improve the digital skills of the

city's inhabitants. The respondents indicated a low level of digital skills as the third area requiring intervention

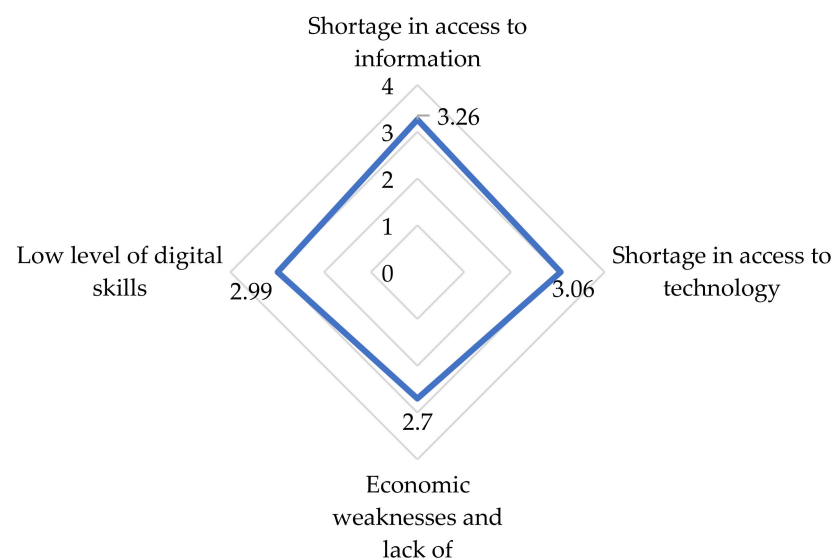


Figure 2. A challenge comparison overview of digital security. Source: own work.

A significant part of the population is characterized by a low level of these skills, so capacity building and developing these skills is crucial for the population. As the last measure in the field of digital security requiring action, the respondents indicated economic weaknesses and a lack of competitiveness. This issue was highlighted, in particular, by the business, which requires easier and more equal access to finance and business opportunities. Economic development must become more self-sufficient and innovative.

The respondents indicated that urbanization is progressing rapidly, which is one of the challenges for infrastructure security. As cities are expanding at a very fast pace, special attention should be paid to the way that they are growing. This process should be carried out in a way that minimizes environmental damage, ensures the protection of cultural assets, and takes economic inequalities into account, thereby considering all the areas that make up city security. The respondents indicated poverty and inequality in cities as the second aim of action.

Population growth and migration lead to an increase in the proportion of people living below the poverty line. This problem leads to strong spatial segregation in cities. The third challenge that needs to be addressed is inequality in terms of access to opportunities and resources. Existing social gaps between different groups (divided by age, gender, origin, social class, and disability, etc.) affecting economic opportunities, access to resources, and environmental conditions must be reduced in order to globally increase access to employment, housing, and education. Another challenge is inefficient resource management, particularly with regard to inefficiency in water, waste, and energy management.

Cities should develop plans to increase this efficiency. The lack of diversification in the urban economy is due to the fact that cities concentrate on one or more sectors, which reduces their resilience. Since urban unemployment is a problem, the location of diverse production factors is crucial.

The lack of available and affordable public transport, the reduction in the growth of private car ownership and use, and a high infrastructure deficit were identified by respondents as the lowest priority challenges requiring intervention. In this respect, it is necessary to develop policies to encourage new modes of transport. Integrated public transport systems should be implemented to enable communication from all parts of the city. Attention should also be paid to the fact that inefficient mobility policies, financial incentives, and greater economic resources increase the use of private cars (which are seen as a symbol of status and progress).

This trend must be reversed. It is also necessary to promote the renewal and improvement of existing mobility networks (road and rail networks), energy distribution, water supply and treatment, and waste management. These measures will have a positive impact on road safety, as well as ecological safety.

In the field of health security, the respondents assessed pollution as a priority challenge requiring intervention. Air pollution (due to the mobility model indicated above), water pollution, and land pollution (due to resource management models) are key issues that affect urban life as well as environmental conditions in the region. Thus, they have a strong impact on human and ecological safety. The second challenge—the deficit of social services—is related to demographic and cultural change. They require improvements in social services in the city to create better working and living conditions, as well as new economic opportunities.

Among the challenges for personal security, the respondents indicated increasing awareness, involvement, and participation as priority actions. There is a lack of knowledge about the population, which results in insufficient involvement and participation. Meanwhile, the local community is a key stakeholder in creating safe urban space and plays a key role in solving challenges in the city. Specific programs and strong political will are, therefore, needed to overcome these problems. The second challenge to be addressed is low urban institutional capacity. The urban management system shows some weaknesses related to the lack of flexibility in formal institutions.

In order to respond to popular demands from residents, improvements in bureaucracy, service management, and data collection are needed. Another challenge is the lack of quality in neighborhoods and public spaces, especially with regard to aspects such as greenery, safety, climate adaptation, mobility, and accessibility.

Improving these aspects should be encouraged. This challenge is strongly influenced by the reduction in car use in public places. The deepening gap between government and society in economic, political, and cultural terms is also a challenge requiring intervention. Attempts should be made to reduce it. People try to access and control resources, but political ties ensure that existing differences persist over time.

The next challenge is urban violence and insecurity. This in turn affects the quality of life in cities and economic development. Social policies must be developed to address this problem. Another problem is the lack of available recreational facilities that are necessary. However, their location in places accessible to all citizens should be taken into account. The last challenge for personal security is the threat to cultural identity. There is a need to promote new cultural proposals for urban development, as well as interventions in heritage conservation and revitalization in historical centers. Traditional economic activities should also be taken care of, given their crucial importance for the population.

4. Conclusions

The whole concept of a safe city essentially refers to the overall safety of the inhabited environment and all stakeholders in a defined geographical area. What is more, the security on a macro scale refers to the broad parameters set by state authorities but managed by the authorities of local government units, which are also cities. The regulation of access to specific infrastructure, resources, and services should be controlled by the municipal authorities to ensure the personnel, digital, infrastructure, and health security for all stakeholders. Residents should also take care of the place where they live, they should consciously choose to travel by public transport, and they should take care of the environment and engage in local affairs.

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