URBAN RESILIENCE AND SECURITY IN TODAY'S SOCIETY: INTEROPERABILITY OF TWO CONCEPTS OLD BUT YET NEW, DIFFERENT BUT HOWEVER TOGETHER

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Abstract:
The management of urban resilience should be seen as an integrative managerial field, insufficiently developed yet and affirmed as belonging to the general managerial science, of the future, which unifies fragmented approaches induced in areas such as risk, business continuity, change, crises. The current societal constraints support the need to operationalize the practical complementarity given by concepts such as resilience and security to emphasize the role of organizational representativeness and involvement (as a way of good practice), with reference to both the public and private spectrum.

Keywords: rezilience; security society; city, complementarity; interoperability

1.Guidelines on the topicality of the theme and research methodology

Smaller or larger in terms of population and extent, more or less important from the point of view of the concentration of administrative functions, more or less economically developed, the contemporary cities determine, at the macro systemic level, managerial challenges on the public agenda at an unprecedented level of complexity compared to the evolution of society and humanity. National and/or global initiatives correlate theory and practice, thus attempting to set some functional managerial frameworks corresponding to the contemporary urban reality.

In this respect, the research methodology is based on the analysis of outstanding bibliographic references (citations, notoriety of the author, quality of the publication where they appeared, etc.) from the specialized literature, the aim being to support the need for a complementary approach to urban resilience and security in the contemporary societal context. Previous elaborations of the collective of authors are obviously taken into account, as elements of continuity but also of completion or updating. In choosing the topic to be addressed in the conference - and subsequently the title of the article - the central topic of the conference was also taken into account, aiming for the best possible framing from this point of view. The section "Management Theory and Practice" where the article is proposed to be presented, attempts to generate a win-win exchange of ideas and opinions on the subject of

resilience, considering the fact that the host institution of the event caters for scientific studies in this sense [1] and the resilience of defense resource systems has become a current concern among military and security specialists as well.

2. Urban resilience and security – contemporary conceptual content

Starting from the observation of Bueno S. [2] according to which resilience can only be observed in critical contexts (related to the state of functionality, in general) it can be stated that urban resilience is a concept that knows new and new transformations and refreshments, as and consequence of the disruptive events taking place nowadays in society (local or regional communities, public or governmental business sectors, etc.). Starting from the observation of Bueno S. [2] according to which resilience can only be observed in critical contexts (related to the state of functionality, in general) it can be stated that urban resilience is a concept that constantly acquires new transformations and refreshments, as a consequence of the disruptive events taking place nowadays in society (local or regional communities, public or governmental business sectors, etc.). At the level of the international specialized literature, the acknowledged efforts (according to the WoS database collected in the last five years/2018-2022 a number of 822 citations, with an average of 117.43 citations/year) undertaken by the authors Meerow, S., Newell , J.P., Stults, M. [3] in carrying out a review and a synthesis of the ways of explaining urban resilience, have resulted in the following working variant proposed in 2016: "*Urban resilience refers to the ability of an urban system-and all its constituent socio-ecological and socio-technical networks across temporal and spatial scales-to maintain or rapidly return to desired functions in the face of a disturbance, to adapt to change, and to quickly transform systems that limit current or future adaptive capacity.*" The concept developed in direct relation, one could say, with the way of development of urban human settlements, its linearity or semantic and practical-applicative dynamics being dependent on the content of certain periods of development of humanity and, implicitly, on the factors (some strongly interdependent) that had major transformative implications on those development cycles (people's conception of well-being, technological revolutions, the struggle for resources and new economic markets, ideological conflicts, etc.). Extensively and intensively, we are facing a sustainability issue, the need for a better alignment of the concepts in this sense being also noted by Lorenzo Chelleri and Aliaksandra Baravikova [4] simultaneously with the awareness of the difference between theory and practice of implementing appropriate solutions to the associated problems. Returning to the current stage of research in the addressed area, it is also worth emphasizing the effort of some Romanian authors to find, from different research perspectives, some correlations between concepts or how urban resilience should work in support of other organizational objectives or at the level of society, in a contextualized way. Thus, the following examples (the last five years) attempt to prove relevant in this framework. The collective led by Sandu Alexandra [5] approaches urban resilience as a tool for decoding post-socialist socio-economic and spatial transformations on a sample of 76 cities in Central and Eastern Europe, indicating, at the level of the cities in the national sub-sample, based on an indicator aiming to integrate the relative resilience capacity assessed as intensity using a five-level scale, the city of Cluj-Napoca (with the best score and implicitly, practice) and the cities of Alba-Iulia, Sibiu, Oradea, Timisoara, Bucharest, with an average resilience. Bănică A., a nationally acknowledged name in the field of specific urban geography studies, explores within a research group [6] the relationship between resilience and smart city initiatives, pointing out

that being smart does not necessarily lead to more resilience but, on the contrary, to an unfortunate diminishing this capacity. Antonescu Daniela [7] put at the disposal of the informed readers a review of the main strategic elements characteristic of the future national urban policy and points out its role in promoting and supporting balanced territorial development, imperatives accentuated by the realities of the SARS-CoV2 health crisis but also in conjunction with the provisions of the New Leipzig Charter adopted in 2020 (the document provides a solid framework for good sustainable urban governance, highlights the transformative power of cities for the common good, with the continuation of the *Urban Agenda for the EU*).

With regard to the second concept proposed for analysis in the title, it should be emphasized that it also has a diverse conceptual range, depending on the field of activity, the approach, the individual or organizational level, territorial scope (local, regional, national, etc.), the reference to practice or theory, etc. Generally, it seems that a lot of ground has been gained by this concept at the level of a heterogeneous mass of the population, in relation to the IT domain, so that the concerns for what cyber security means, as a created effect, are serious/major/considerable. As an overall idea, it seems that through security (although the concepts are oftentimes mistakenly used synonymously) the idea of safety is brought to attention but in relation to a referential that weakens this state. Through a much more detailed bibliometric analysis of the two concepts, the collective of authors formed by Elena Lisova, Irfan Šljivo, and Aida Cauševic make a distinction by showing that "*bringing together safety and security work is becoming imperative, as a connected safety-critical system is not safe if it is not secure*"[8]. Another meaning and topical variation of security, which has also developed especially in studies in the fields of sociology and social sciences and which is also of interest in relation to urban resilience, is that of societal security, sometimes mistaken for social security. A study undertaken within the project *European Security Trends and Threats in Society* highlighted the fact that "*societal security means the security of societal sources of human well-being in general, and the societal sources of individual security in particular. It overlaps but is not identical with the notions of social security, state security and human security, and fills a void in the literature on security*" [9, p.23], the same source mentioning that "*domestic and transnational (e.g. EU) security policies are often presented in terms of societal security; they are concerned with (1) the protection of critical infrastructure that the basic functioning of society relies upon (e.g. the security of structural conditions for meaningful/valued existence), and (2) with improving collective security systems for the protection of individuals and groups against specified threats (i.e. societal sources of individual security).*"[9, p.23]. Furthermore, modern theories such as those pioneered by Buzan suggest the importance of people's collective mental representations as a component in building societies, nations and the security state. They also emphasize [10] that the ideologies to which people have access influence the way in which realities are evaluated and interpreted by them. A very important and at the same time intricate process is the fact that individual interpretations (especially those popularized within collectivities), more or less distorted, can lead to the construction of more or less secure societies, to military, organizational or common capabilities more or less operational relative to the security status. As a consequence, it can also be appreciated that the study of crisis management is becoming, in direct relation with the dynamics of the security environment, increasingly sophisticated and extensive, decision-makers and researchers becoming increasingly concerned with crises triggered by terrorist acts, cyber attacks, the interdependencies between critical infrastructures and ripple effects and with a more comprehensive analysis of disaster risk

reduction and the need to adapt to climate change [11]. In an increasingly versatile global organizational environment, when we talk about security, it has become very fashionable to raise the question about the existence and inclusion of an appropriate culture. In this respect, the conclusions drawn by Oana-Elena Brânda [12] emphasize the role of the actors-rules-resources trinomial, or even more practically, in Prigogine's language, of the source-sensor-decider type: *"The state of security that subsequently leads to the consolidation of an adequate security culture can also be interpreted as a mental attitude, which depends on the perceived nature of the environment in which the actor in question finds himself. The environment influences not only the behavior of the actors, but also their identity."*

3. Urban resilience and security – connections

The dynamics of the frequency of the use of the concept of urban resilience is also highlighted (figure 1) by the graph generated with the help of the Google Ngram Viewer database [13], a distinct point on the selected time axis being the year 2011. Overall, an increase in the frequency of the use of the concept is observed while for security the decrease is obvious.
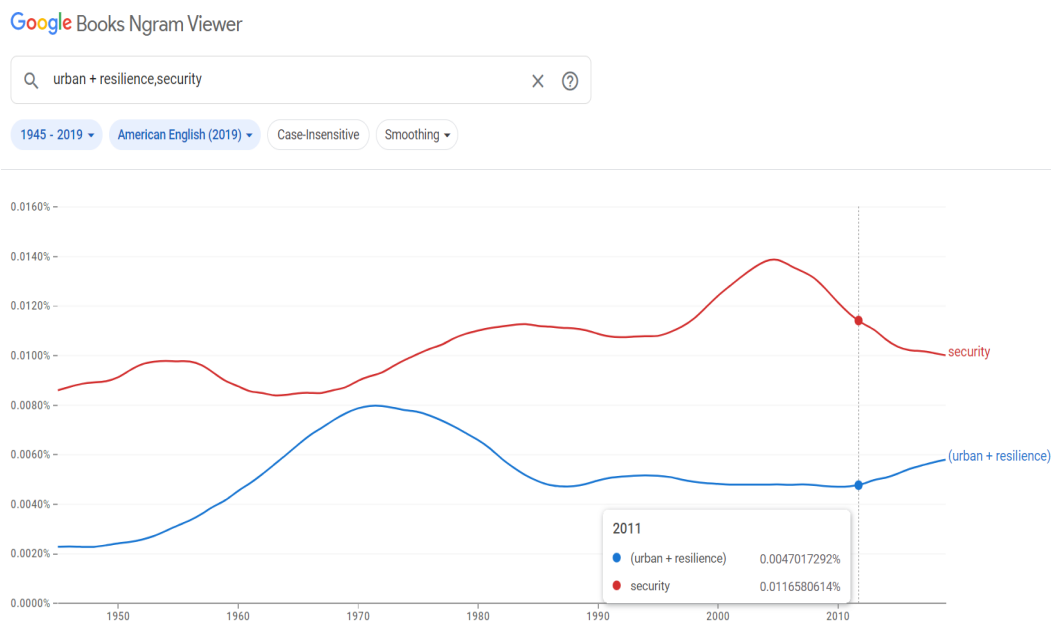

Fig.1. Print screen of Google Ngram Viewer for the search in question

The topicality of the proposed topic is also supported by the results obtained through a search at the level of the WoS database (figure 2) using the two concepts from the title of the article, restricted to type and within abstracts, for a period of five years (2018 -2022).
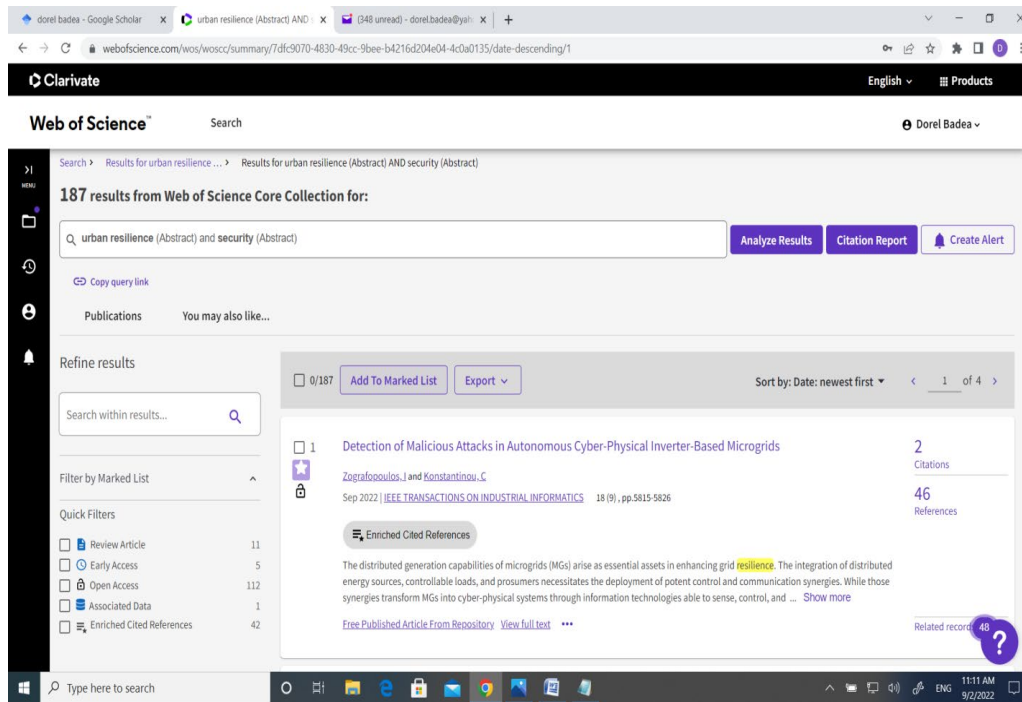
Fig.2. WoS Print screen of the search in question

By categories of domains in which results were found, the data are presented in table no. 1 (records with a number less than 4 were no longer used in the table), thus resulting the diversity of domains in which the two concepts were used and encountered, according to the set search [14].

No. crt.	WoS category in which results appear	Number of recorded results	Percentage out of the total of 187
1.	Environmental Sciences	55	29.412
2.	Environmental Studies	44	23.529
3.	Green Sustainable Science Technology	27	14.439
4.	Urban Studies	16	8.556
5.	Water Resources	13	6.952
6.	Geography	11	5.882
7.	Meteorology Atmospheric Sciences	11	5.882
8.	Regional Urban Planning	10	5.348
9.	Food Science Technology	9	4.813
10.	Geosciences Multidisciplinary	9	4.813
11.	Public Environmental Occupational Health	9	4.813
12.	Ecology	8	4.278
13.	Development Studies	7	3.743
14.	Engineering Civil	7	3.743

15.	Engineering Industrial	7	3.743
16.	Engineering Environmental	6	3.209
17.	Computer Science Theory Methods	5	2.674
18	Economics	5	2.674
19.	Multidisciplinary Sciences	5	2.674
20.	Agriculture Multidisciplinary	4	2.139
21.	Agronomy	4	2.139
22.	Architecture	4	2.139
23.	Construction Building Technology	4	2.139
24.	Energy Fuels	4	2.139
25.	Operations Research Management Science	4	2.139

Table 1 WoS domains in which the search for the two concepts of the study occurs

As can be seen from the table, the prevalence of the concepts searched for in the first three categories of publications is evident, the explanation being obviously also related to the connection of the two concepts with that of sustainability. An example in this sense is provided in objective 11 of the *2030 Agenda for sustainable development* which aims to „*Make cities and human settlements inclusive, safe, resilient and sustainable*" stating that: "*we are setting out a supremely ambitious and transformational vision. […]A world where human habitats are safe, resilient and sustainable and where there is universal access to affordable, reliable and sustainable energy.*" [15]

Risk events constitute the managerial indicator which determines verifies and validates the interoperability between urban resilience and security. For both cases, the setting in motion of specific managerial mechanisms (not to mention standard specifications) is triggered by an event outside the area set as acceptable from the point of view of functionality. One has to take into account the differences that converge, in this sense, in the American specialized literature [16] being noted that in the case of critical infrastructures, necessary to be perceived as ubiquitous assets in the contemporary urban environment, resilience is understood by "*the ability to prepare for and adapt to changing conditions and withstand and recover rapidly from disruptions. Resilience includes the ability to withstand and recover from deliberate attacks, accidents, or naturally occurring threats or incidents.*" while security is perceived as "*to reducing the risk to critical infrastructure by physical means or defense cyber measures to intrusions, attacks, or the effects of natural or manmade disasters.*"

A pertinent observation regarding the relationship between resilience and security was also made at the European level by Urban Innovative Actions stating that: "*Security is a complex issue that should include areas such as social integration (access to good quality and non-segregated basic services including education, social and health care etc.), law enforcement, society's resilience and community empowerment against any forms of violence. It also concerns enhancing the protection of buildings and infrastructure.*"[17]

It is also interesting to analyze the relationship between the security culture and the level of urban resilience achieved at a given time. Two options can be outlined: the security culture determines the level of urban resilience and, in particular, the associated specific attitude, and the level of urban resilience operationalized at a given moment demonstrates the existence of a solid security culture. In other words, the fact that we have (as an individual,

organization, community, etc.) a good level of security culture makes us more resilient in the urban environment, while the fact that we demonstrate resilience in the urban environment is an indicator of the level of internalized security culture.

Another argument in support of the interoperable approach of the two concepts refers to the fact that endangering an optimal admissible level for the two cases has effects starting from the individual level, this being a true sensor that warns of a perceived threat level in a domain which is non-functional in a certain context (e.g. shutdown of electricity supply during winter). Even if they involve management on different sequences (stages), understanding the challenges (threats and opportunities) of the urban environment plays an essential role, systemic thinking being essential.

By simply relating the concept of security to the informational component, one can infer the need for a complementary approach between urban resilience and security, given the extensive presence of IT assets and the intensity of informational flows specific to a city within the global informational architecture, both with reference to the public environment as well as the private one.

4. Conclusion

Although sharing a history as factual manifestation and as usage and semantic coverage, the concepts of security and urban resilience will acquire new and new meanings, in accordance with the irreversible path of human development in general and the urban environment in particular. Their separate use prevents the implementation of specific processes of urban governance, an integration based on complementarity constituting an imperative.

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