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## Determinants and attributes of leadership in the public safety management system

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### Abstract

The objective of this paper is to identify determinants and attributes of leadership in the public safety management system. This aim has been accomplished based on the desk research method and participant observation. As a result it was concluded that leadership in public safety management is determined by external and external forces, situational circumstances, characteristics core to the entities of the system, and relationships occurring between them. It was also ascertained that the principal attributes of leadership in the system examined include complexity, sharing and collaboration.

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### 1. Introduction

The public safety management system represents a dynamic configuration of an unlimited number of entities with the goal of ensuring secure conditions for all entities operating on the specific administrative territory using resources possessed within the framework of formal rules and informal relationships, typified by non-repeatability and volatility as well as continuous adjustment to current circumstances and needs occurring (Sienkiewicz-Malyjurek and Kozuch, 2015, p. 40). To carry out activities under such circumstances, being characteristic to the public safety management system requires appropriate leadership. This is critical to adequately orchestrate ventures, coordinate operations and transfer information between specific sub-systems across the system. However, even though leadership is one of the most widely explored issues in the theory of management sciences (Hunt and Dodge,

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2000; Peterson and Hunt, 1997), a research gap remains in the field of safety and emergency management (Silvia and McGuire, 2010, p. 267; Hannah et al., 2009). This paper is an attempt to fill this research gap, and its objective is to identify determinants and attributes of leadership in the public safety management system. Moreover, the reference literature underlines the need for holistic all-ranging approach to the issues of leadership because the research conducted in this respect are largely atomistic in their nature, thereby failing to grasp its complexity (Avery, 2009, p. 29; Van Wart, 2003, p. 224). Therefore, analyses presented in this paper rest on complexity theory, which extends the capacities for a holistic approach to leadership (Marion and Uhl-Bien, 2001; Schneider and Somers, 2006).

The purpose of the publication has been achieved on the basis of research carried out under the project entitled "Coordination, communication and trust as a factors driving effective inter-organizational collaboration in the system of public safety management". This project is financed by the National Science Centre based on decision no. DEC-2012/07/D/HS4/00537. To achieve the purpose of the article, the desk research method and participant observation were carried out. Observations were conducted on 16 shifts from September to December 2013 in the Province Headquarters of the State Fire Service in the Silesian Region. They covered principles underpinning the operations of fire service. The observations were performed while executing preventive measures (formal and informal meetings, debates) and combating hazards (technical, chemical, medical rescue).

## **2. Basics of leadership**

Leadership is a complex set of processes that evolve in time and characterise with diversity of typology, approaches, styles, tools and models. It is an age-old concept that transforms with the advance of social interactions (Trottier et al., 2008, p. 320). Nevertheless, the reference literature lacks the definition to fully reflect the spirit and complexity embedded in leadership. Moreover, despite long-time research, it is still not clear what leadership precisely stands for (Graen and Uhl-Bien, 1995, p. 220). It is commonly believed that it comprises the collection of processes executed so as to induce people to collaborate in favour of the organization. Essentially, this refers to behaviours, attributes and outcomes of the leaders' activities which tend to be interpreted by members of the specific group and they depend on their perception as well as relationships between leaders and group members. When carrying out research into leadership, Gayle C. Avery (2009, p. 38) distinguished its four basic paradigms, namely: classical, transactional, visionary and organic. The classical paradigm, the oldest one, relies on leader dominance through respect and/or power to command and control. Underlying the involvement among group members is fear or respect to the leader as well as a quest for reward or penalty avoidance. Whereas transactional paradigm involves exerting influence on group members in personal relationships and through incorporating their opinions and feelings. Another, the visionary paradigm, is built upon a leader who inspires group members to take actions. While the organic paradigm, currently binding, is premised on joint interpretation of the setting in the group. From this perspective leaders may be selected from among the group instead of being formally designated. Similarly, Montgomery Van Wart (2013) claimed that fundamental leadership theories embrace: classical management and role; transactional leadership; transformational leadership; horizontal or collaborative leadership; and ethical and critical leadership theory. He also believes that each theory includes significant characteristics of leadership, and it is related to a specific research period and each continues to evolve.

Today's approaches to leadership emphasize its complexity and multi-dimensionality (Schneider and Somers 2006; Avolio et al., 2009; Hernandez et al., 2011). They focus on leaders' integrational skills and they also concern ethical issues and values of leadership. They reveal that it is dispersed and emerges in different parts of the organization. Hence, it may be investigated in terms of complexity theory, whereby leadership is executed spontaneously and unconsciously, and tends to be temporary in its nature and forced by the situation (Schneider and Somers, 2006, p. 356). It requires entanglement among the roles of administrative, adaptive and enabling leadership (Uhl-Bien et al., 2007, p. 306). Therefore, the public safety management system constitutes an adequate field for examining present-day determinants behind leadership.

### 3. Characteristics of public safety management

Public safety management is an organized activity performed with the use of human, financial, technical and information resources provided by numerous organizations in order to mitigate potential hazards, ensure undisturbed social life as well as protect human health and life as well as property and environment, which involves law compliance and maintenance of order with the focus brought into the fulfilment of the public interest (Sienkiewicz-Malyjurek, 2010, p. 124). Basically, its issues span from social policy through regional and criminal policy to emergency management (Tomasino, 2011; Williams et al., 2009). Public safety management is carried out by entities that operate on the specific administrative territory formed by (Kozuch and Sienkiewicz-Malyjurek, 2015a; Kozuch and Sienkiewicz-Malyjurek, 2015b): local government, response and rescue units, society, media, non-governmental organizations, research and development units. The entities' groups listed constitute a complex and dynamic system and their role changes depending on the situation and threat type. The structure of the system is typified by flexibility depending on the orientation of operations and threats occurred. Furthermore, the system is closely linked with the environment in which it operates and constrained by interdependencies between elements of this environment (Fedorowicz et al., 2007). Thus public safety management may be analyzed as complex adaptive system. From such a perspective, its distinctive attributes include (Kozuch and Sienkiewicz-Malyjurek, 2014, p. 475):

- Large number of components: The activities are performed by organisations from different sectors, which are complex systems themselves [...].
- Variation: A considerable amount of resources in varying amounts and configurations is dispatched towards the activities - in every case differently, depending on the needs.
- Self-organization: System components are subject to continuous, spontaneous organizing. The structures are formed under the influence of relations between elements of the system and between the system and its surroundings.
- Diversity: The system is aimed at preventing and combating social, natural and technical risks. The scale and nature of the hazards are the basis of the diversity of the actions taken.
- Dynamism and liveliness: Every event, even of the same type, is different [...].
- Adaptation to their environment: Conditions for the implementation of activities create a need for an individual approach to each hazard, adequately to the emerging needs and requirements of the situation [...].
- Interactions: The units of a public safety system operate within the framework of cross-organizational collaboration built on the basis of formal and informal relationships.
- No-linearity: It is never known what the outcome of actions will be, and the measure implemented are not directly proportional to the achieved results.
- Selection: In any case, there are many ways and strategies to perform actions [...].

The attributes typical to the public safety management safety presented above suggest multi-dimensionality and complexity of activities performed. These attributes together with the thematic scope of public safety management create the need for its adequate leadership.

### 4. The context of leadership in the public safety management system

Leadership in the public safety management system constitutes a unique phenomenon unlike the case of organizations that only function in a stable environment (Hannah et al., 2009). This stems from the dynamics behind situational changes and the possibilities for serious consequences occurring for people, environment and property, e.g. fatalities, serious bodily injuries, long-term environment pollution, devastation, etc. Under such circumstances leadership processes are executed that facilitate operations performed by multiple organizationally independent units. Principally, these processes encompass coordination of activities, communication with representatives of other organizations and members within own group, motivating them to efforts and taking decisions. In addition, these processes are entrenched by factors of both internal as well as of external nature. Therefore, leadership in the public safety management system proves to be a complex issue.

Observations conducted make it possible to argue that leadership in the public safety management system is executed by activities aimed to prove to organization members that the leader's efforts adopted to accomplish the mission, which in general terms includes their care about life, health, security and property of the society, are justified. All in all, this proceeds differently during a stabilization period and under threatening conditions. Simultaneously particular leadership paradigms fit into different conditions for operations.

While conducting observations of rescue activities, it was found that leaders take into account knowledge, experience and ideas brought by representatives of other organizations in their decision-making process. For instance, when removing an overturned road-tanker lorry during an accident, the fireman leading rescue activities exploited the experience possessed by units within his own organization, but he also took into consideration knowledge provided by roadside assistance employees and persons operating rescue equipment (e.g. cranes). Likewise, during an accident between two large lorries, the officer supervising actions took decisions based on consultations with medical rescuers and police. Though, in the vertical configuration, classical leadership paradigms prevailed. Similar conclusions were drawn during observations conducted during the stabilization period which covered: trainings, exercises and inspection of operational readiness. For such cases, a hierarchical power configuration predominates.

Therefore, it was ascertained that during the stabilization period when hazards are not occurring, leadership rests with the officers in charge of individual entities forming the public safety management system. This originates from the hierarchical structure of specific organizations. For this reason, leadership is primarily fulfilled in compliance with the classical and transactional paradigms. In essence, this relies on the power and professional subordination, and involves giving orders and delegating powers. Nonetheless, entities across the public safety management system also holds in high regard: knowledge, capabilities, training and initiative. In particular, this is apparent in hazardous contexts when conditions for operations stand out by their complexity, chaos and dynamics. In such a situation, leadership paradigms embedded in the stabilization period continue to apply, yet visionary and organic paradigms also emerge. Members of individual organizations across the public safety management system are expected to become involved in activities not only through order execution but also through expression of their views, thereby affecting the direction of operations. This is consistent with the principle "the more dynamic an organization's environment, the more organic its structure" (Mintzberg et al., 2003, p. 218). In such a situation leadership hinges on activities taken by other members of the organization and their processes carried out. This is thus entrenched in the complex network of interactions between specific subsystems within the system. Additionally, this takes place within the whole system and moves in various relationships within this system according to the situation. This rests with persons who are best suited to this role at the moment, have knowledge to address a challenging situation and make use of expertise possessed by other people. Accordingly, this is fragmented among entities in the public safety management system.

Experience and awareness of the complexity typical to the issues of leadership in extreme contexts results in the launch of appropriate activities during stabilization period. Through adequate preparedness of their organizations leaders seek to attain readiness for potential future hazards. In this field they deploy their authority to coerce the desired behaviour among employees, including their participation in trainings and exercises and attainment of new competences contributing to the organization's progress. However, they are aware that without conformed stances, commitment to the case and employees' engagement their actions will fall short of outcomes expected. Hence, during debates they strive to convince their subordinates to follow the course of action set and allow them to jointly take decisions based on the expertise and individual experience possessed. Bearing in mind the reliance on the activities undertaken by other organizations, leaders in the public safety management system also take external initiatives. They strive to teach employees within their organizations to collaborate with other entities. On the whole, this results in the organization of meetings and inter-organizational exercises.

## **5. Characteristics, determinants and attributes of leadership in the public safety management system**

The context of leadership in the public safety management system illustrated above arises from the complexity of the system. This system encompasses internal, external and situational determinants as well as the characteristics distinctive to entities of this system and the relationships between them.

Situational implications mostly stem from the impossibility of precisely predicting hazards and their ramifications as well as the dynamics driving the course of action and uniqueness of the situations. Whereas internal and external factors comprise:

- legal and political determinants: internal ones include e.g. existing regulations, personal policy, pressure groups whereas external ones include: existing legal regulations, centralisation level, political order and institutional solutions, democracy level;
- organizational determinants: external ones include e.g. environment in which specific organizations operate and the level of inter-organizational relationships, whereas internal ones include the organization's size and the development strategy adopted;
- social determinants: external ones include social culture, inter-organizational trust level, whereas internal ones include interpersonal contacts as well as organizational culture.

Meanwhile, the characteristics of leadership are concerned with such elements as (according to: Dienesch and Liden, 1986; Schriesheim et al., 1999):

- leader's traits, e.g. skills, ability, behaviours, knowledge and consciousness,
- group members' traits, e.g. capabilities, involvement in activities, respect to the leader, willingness to collaboration,
- relationships between a leader and group members.

The determinants and characteristics of leadership influence its attributes. The research completed shows that the fundamental attributes of leadership in the public safety management system are complexity, adaptation, sharing, and collaboration.

Complexity follows from the context of leadership in the public safety management system. According to this approach, leadership is rooted in the complex configuration of relationships and collaboration (Uhl-Bien et al., 2007). It is perceived as a dynamic arrangement of elements linked by ongoing projects likely to generate innovative solutions and facilitate adaptation to changes. This is consistent with new trends for leadership development (Avolio et al., 2009). Whilst adaptive leadership in the public safety management system is essentially concerned with the dynamics, uncertainty and complexity of situational factors. In such circumstances leaders are required to focus on the processes conducted so as to boost the team involvement in the search and implementation of best possible measures in response to the volatile situation (Randall and Coakley, 2007). Meanwhile, shared leadership is triggered by its dispersion among participants of the public safety management system, and relies on the threat type. Clearly, this implies that leadership is closely connected with the relational microprocesses and refers to the attributes of the team where this is distributed among the team members (Fletcher and Kaeufer, 2003; Carson et al., 2007). This is closely connected with another attribute of leadership – collaborative, which is then the product of interdependencies occurring among operations performed by specific organizations functioning within the public safety management system. Collaborative leadership is understood as building relationships, handling conflict and sharing control (Archer and Cameron, 2009, p. 11). In the public safety management system it covers processes in which representatives of diverse organizations jointly formulate the directions for operations while going beyond their own organization interests to achieve the cluster of shared objectives. Further, leadership tends to be the key to honing capacities for collaboration between organizations (Wise, 2002, p. 133). The attributes specified prove to be the source of leadership effectiveness in the public safety management system.

Based on the discussions held, Figure 1 illustrates leadership characteristics, determinants and attributes driving the effectiveness of leadership processes.

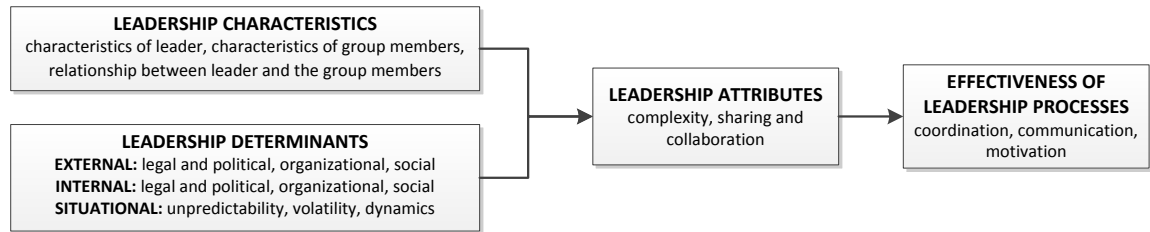


Fig. 1. Characteristics, determinants and attributes of leadership in public safety management system (own development).

Research conducted highlighted the multi-dimensionality and holistic nature underlying leadership in the practice of public safety management. In sum, they show that leadership combines various organizational levels and spheres, and its effectiveness comes from relationships between elements setting up the public safety management system.

## 6. Conclusions

This paper seeks to analyse the issues surrounding leadership in the public safety management system from the holistic perspective. While conducting the analyses, the rudiments and contemporary approaches to leadership were depicted, and the public safety management system was portrayed as a complex adaptive system. Based on the observations made, the context and characteristics of leadership in the public safety management system were analysed. However, the scope and preliminary character of research conducted renders the findings obtained exploratory in their nature. Despite these restraints, the objective set was accomplished during investigations.

It was found that the principal role of leadership moves to the fore in the public safety management system during the stabilization period as well as during threat combat. Moreover, leaders in this system are required to display innovations and creativity as well as compatibility between applicable legal regulations and existing political factors. This leads to the situation when leaders, in their efforts to best fulfill their role, swing between ongoing determinants so as to best use their leadership attributes in order to maximize the effectiveness of the process.

It was also ascertained that leadership in the public safety management system is affected by internal and external drivers, situational factors as well as the characteristics typical to the entities setting up the system and relationships between them. Internal and external factors include legal, political, organizational and social requirements. Whereas situational factors refer to non-repeatability, complexity and dynamics behind operations. Of equally important significance for the course of leadership process are its characteristics, including the leader's traits, group members' traits, and the relationships between the leader and his group members. The determinants listed make complexity, sharing and collaboration gain a prominence among attributes of leadership in the public safety management system. Overall, these attributes are apparent during the stabilization period as well as while executing operations.

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