

## Formation of Social Leadership in the System of Public Safety and Security Through the Use of Modern Modeling Techniques



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<https://doi.org/10.18280/ijssse.130213>

### ABSTRACT

**Received:** 25 February 2023

**Accepted:** 12 April 2023

**Keywords:**

*security, public security, social leadership, model*

The main purpose of the article is to study the modeling of the process of formation of social leadership in the system of public safety and security. The object of the study is the system of formation of social leadership in the context of security and safety. The research methodology involves the use of modern technology of multi-level graphical-functional modeling aimed at better reflecting the process of forming social leadership in the system of public safety and security. Based on the results of the study, a number of models were obtained in the article that contribute to a better understanding of the process of forming social leadership in the system of public safety and security. The elements of novelty presented in the results of the study are depicted using a new methodological approach. The prerequisites for this study were to identify a number of problems in the system of formation of social leadership, taking into account security aspects in the region. The strengths of the article are a methodical approach to solving the problem. Weaknesses are a number of emerging limitations. The study has a limitation in the form of not taking into account all aspects of the formation of social leadership in the system of public safety and security. However, in the future, it is necessary to expand the modeling of the formation of social leadership in the system of public safety and security.

## 1. INTRODUCTION

The implementation of the reform of local self-government and the territorial organization of power leads to the expansion of the system of providing social services to initiate social changes to ensure a favorable environment for the life of the population, ensure security and safety, support the conditions for the protection of human rights and its self-realization, the success of which significantly depends on the professionalism, culture of management and competitiveness of social workers. Socially constructive changes correspond to the orientation of practical social work towards the safe development of society, which primarily increases the need to organize the process of training future specialists based on a new paradigm - leadership in social work.

Currently, the practice of social work requires the involvement of social workers in the process of developing effective models of social work, providing innovative social services to vulnerable categories of the population, introducing administrative services of a social nature, interacting with society, which affects the change in many educational guidelines for professional training and actualizes the importance of the problem of formation social leadership from future professionals. As an integrated education of the

individual and the result of professional training, social leadership is able to ensure the implementation of constructive social changes as a value of social work, the desire for effective partner cooperation and teamwork, the expansion of knowledge management and social work resources, the manifestation of analytical and creative thinking. In this vein, the formation of social leadership contributes to the formation of a system of knowledge and beliefs, one's own social position, interaction with recipients of social services and social institutions, which is characterized by intensity, interactivity, meaningful content and can occur when creating and implementing effective models that gradually allow directing this process in the right, public way to ensure safety and security.

Safety and security come from a leader aimed at her. Indeed, the social nature of a leader lies in the fact that he is a person who knows what needs to be done and knows how to organize the process of ensuring public safety and security. He knows how to convince and is able to lead people along, at the same time taking on responsibility, which a significant part of people (according to some sources - up to 75%) seek to avoid. The leader, on the other hand, has discipline, self-discipline, knowledge of what and how he needs to do in any danger. One of the most important traits of a social leader is his courage

and ability to take risks. However, his risky decisions are not reckless, but clearly thought out, motivated by a deep risk assessment. When at risk, there is a thin line of what will lead to threats, which is why it is important to form a security and safety system.

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The structure of the article provides for a consistent analysis according to the chosen topic, starting with an introductory part, a review of the literature and a description of the methodology, and ending with the presented research results, their discussion, comparison, and the formation of conclusions.

## 2. LITERATURE REVIEW

The literature indicates [1, 2] that a common feature in the formation of the concept of "social leadership of social workers" as a scientific category is the contradiction between the structural components, the content of which has not yet been fully formed. In other words, the essence of "social leadership of social workers" as a scientific category has not been finally determined. This situation indicates the possibility of attributing "new" elements to the structure of social leadership of future social workers or providing a "new look" at determining the structure of social leadership based on the essential characteristics of leadership-service, ensuring the integrity of its presentation.

The process of forming social leadership among social workers determines the specifics of the organic combination of methods, forms and means and the social and educational activities of all subjects of the process, since it allows quick adaptation to social changes and determines the process of self-realization of the personality of a social worker [3, 4].

As noted in the leading scientific and practical literature [5-7], the contribution to the theory and practice of social work of the administrative direction of social work, which is characterized by the introduction of an administrative model for the provision of social services, in particular in the territorial community, is especially indicative for ensuring public safety and security; when organizing socio-pedagogical work with children and young students in the territorial community. It is clear that social workers must be prepared to respond to the changing needs of social work clients; meet the challenges of the profession; develop new resources, address professional challenges, and advocate for improved delivery of mental health services in palliative care settings, social service delivery for families and populations with special needs.

The training of social leaders themselves has a strong emphasis in this scientific area. Summarizing the opinions of scientists and practitioners [8, 9], it is worth noting that social workers cannot passively reproduce social changes in society because they must actively search for ways and innovative ideas to solve urgent social problems and ensure security. Therefore, professionals for the social sphere need to be trained in such a way that they can change, eliminate and minimize negative social manifestations in society.

Most scientists agree [10-12] that we consider the formation of social leadership among social workers as a specially organized process of high-quality training of social workers,

which is based on an orientation towards constructive social changes as a value of social work; striving for effective partnerships and teamwork; empowering knowledge management and social work resources; ensuring the development of analytical and creative thinking in the context of safety and security.

However, no matter how actively the issue of social leadership is explored, today there is no clear phasing of this process, taking into account the special needs in ensuring public safety and security. This determines the relevance of the chosen research topic.

## 3. METHODOLOGY

SADT-model is an accurate, complete and adequate textual and graphical description of a system with a specific purpose, made in the form of a hierarchically organized set of diagrams created on the basis of a standard data representation. This is a description of a system where there is a single subject, goal and one point of view using the SADT methodology. This model is a set of hierarchically arranged and interconnected charts, where the top chart is the most common and the bottom chart is the most detailed.

SADT models use both natural and graphical languages. Graphical languages involve the construction of appropriate models in graphical form for a better understanding of the subject of study. The main inputs of the models are resource provision depending on the specifics of the socio-economic system. The output is a certain result through a socio-economic effect. To convey information about a particular system, the source of natural speech is the people describing the system, and the source of the graphic language is the SADT methodology itself. The SADT graphical language provides structure and an accurate representation of the natural language semantics model. SADT's graphical language organizes natural language very clearly and unambiguously, thanks to which SADT makes it possible to describe systems that, until recently, were not adequately represented. From a methodological point of view, a model can focus either on the functions of the system or on its objects. Functionally oriented SADT models are called functional models, and object oriented models are called data models.

Based on the standards for creating a SADT functional model, we analyze and describe the initial prerequisites for its creation: the purpose of modeling is to develop a functional model; the target audience of the model is safety and security workers; context of the functional model - a list of functions and objects of diagrams of the functional model; modeling technology - methodology of functional modeling; simulation software - an application program for creating vector diagrams.

SADT stands out among modern systems description methodologies due to its wide application, because SADT: is the only methodology that easily reflects similar system features such as security and safety assurance and feedback and actors. This is due to the fact that SADT originally arose on the basis of the design of systems of a more general form, in contrast to other structural methods that have "increased" in software design; in addition to existing concepts and standards for creating systems, advanced procedures have been added to support teamwork; designed for use in the early stages of creating a system; can be combined with other structural methods. This is achieved by using graphical SADT descriptions as diagrams that link together different methods

used to describe certain parts of the system at different levels of detail.

In our case, we will apply it to the formation of social leadership in the context of ensuring public safety and security of Alytus County (Lithuania).

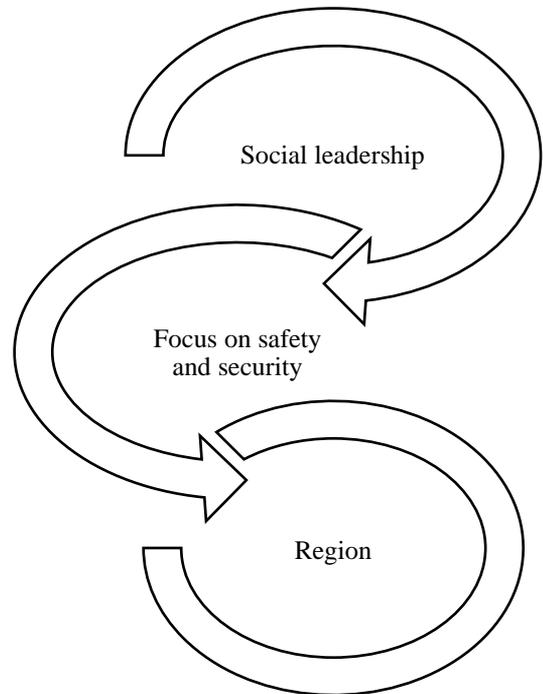
#### 4. RESEARCH RESULTS

To better understand the relationship between social leadership and public safety and security, let's represent this through Figure 1.

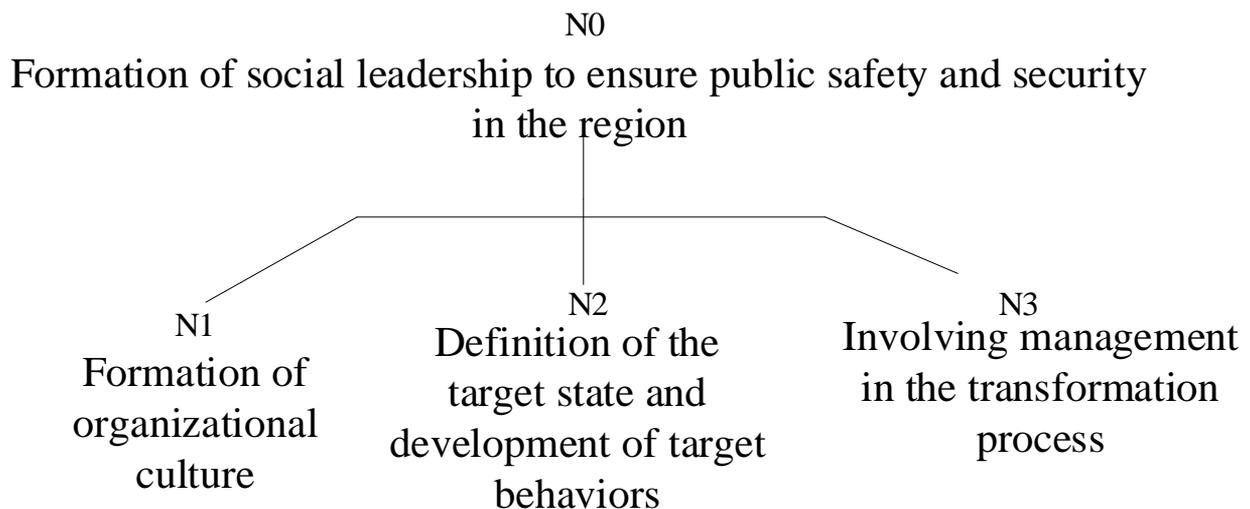
To begin with, it is necessary to form the main goal and the stages of achieving it, which will later be subjected to modeling techniques to form an appropriate model. Thus, according to our research topic, the goal will be designated as N0 "Formation of social leadership to ensure public safety and security in the region " (Figure 2).

But in addition to those presented in Figure 1, it will be impossible to achieve the N0 "Formation of social leadership to ensure public safety and security in the region" stages without auxiliary parameters that will directly or indirectly affect the effectiveness of this process. They should be presented in the form of a functional-graphic diagram using the modeling technique we proposed (Figure 3).

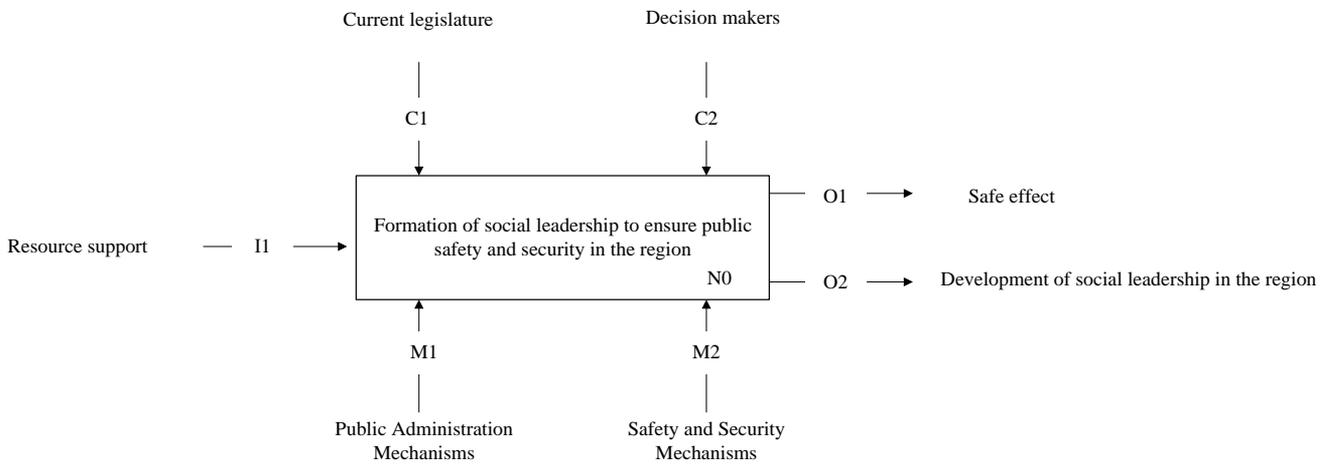
Each region is a complex socio-economic system, which can also feel the negative impact of certain threats. That is why there must be a proper security and safety system in place. The public administration system is carried out in separate regional units and its duties include ensuring security and safety. Thus, the region for public safety and security is an object of influence.



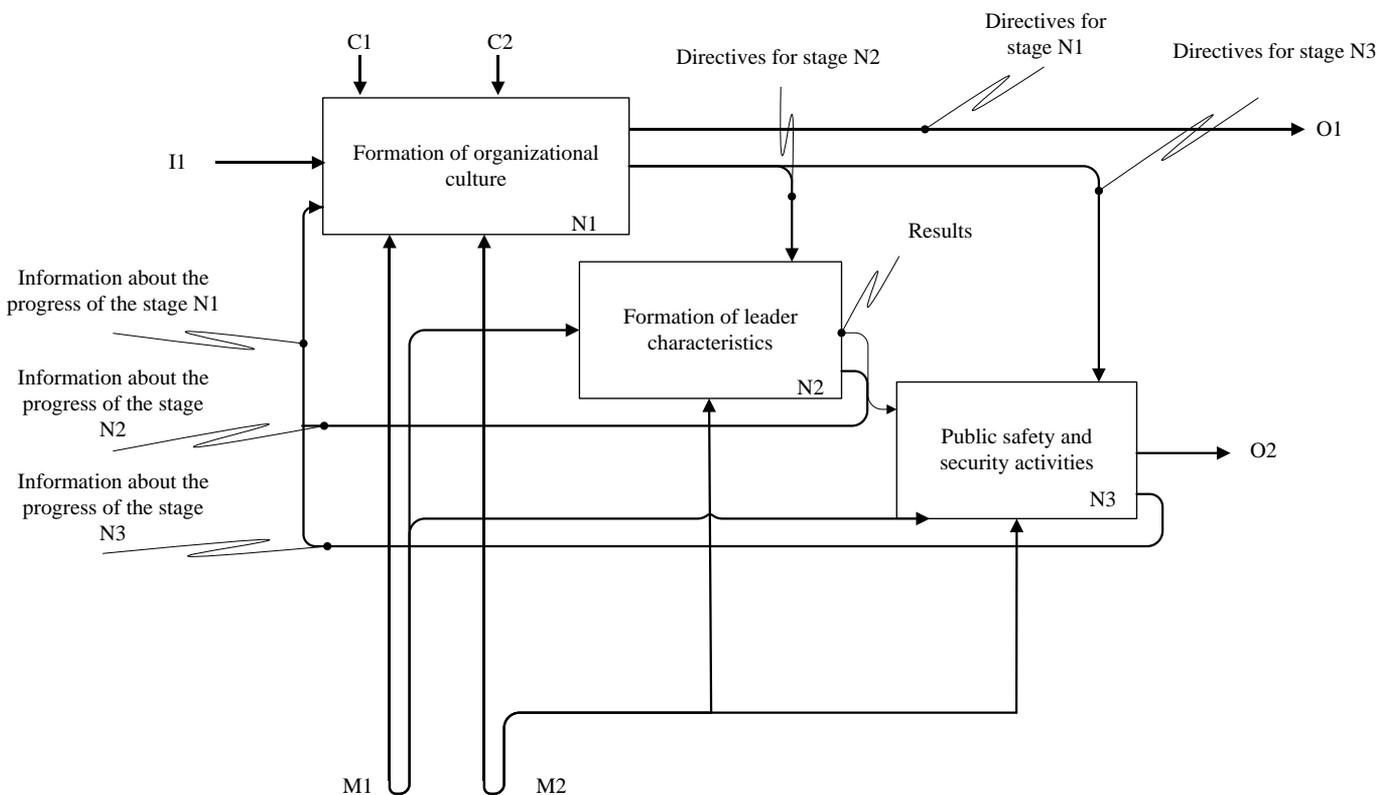
**Figure 1.** The relationship between social leadership and public safety and security  
Formed by the authors



**Figure 2.** Graphical representation of the main stages of achieving N0  
Formed by the authors



**Figure 3.** Functional-graphic diagram of achieving N0  
Formed by the authors



**Figure 4.** decomposition functional-graphical level of achievement  
N0 "formation of social intellectual culture for health and safety in the region"  
Formed by the authors

Thus, using the modeling technique proposed by us, we will build a decomposition functional-graphical level of achievement N0 "formation of social intellectual culture for health and safety in the region" in the form of a modern model, which is shown in Figure 4.

Thus, we characterize the stages of achievement N1 "Formation of organizational culture":

N11. Diagnostics of organizational culture. During diagnostics, the existing corporate culture, values and behavior patterns of groups of employees are described and evaluated in specific, unanimous and understandable terms. The results of the diagnostics allow us to understand how much this

culture hinders or contributes to the formation of social leadership.

N12. Definition of the target state and development of target behaviors. Based on the results of diagnostics of organizational culture, such cultural transformation priorities are identified, which, on the one hand, will be based on the existing "cultural baggage", and on the other hand, will contribute to the achievement of strategic goals of ensuring public safety and security.

N13. Involving management in the transformation process. The leadership of any public organization must be involved in the process of change, thereby providing support for the

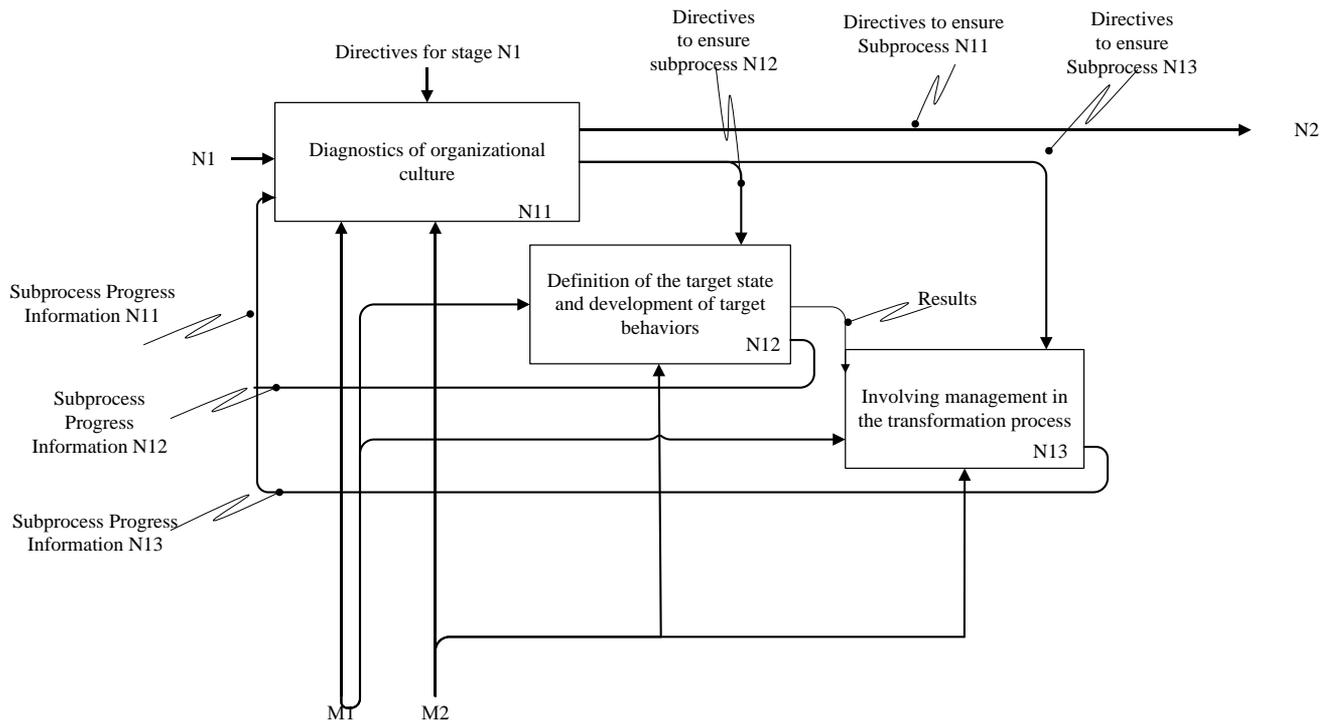
transformation of culture from the side of key stakeholders who shape the culture of the social leader through their behavior (Figure 5).

Thus, we characterize the stages of achievement N2 "Formation of leader characteristics":

N21. Solving complex safety and security problems. The ability to understand complex situations and controversial data is an invaluable characteristic for leaders, from whom the social group expects such decisions every day. Here the social

leader will need the ability to think critically to ensure public safety and security.

N22. Definition of social responsibility. When new obstacles are constantly encountered in the way of fulfilling obligations and agreements, being able to realize one's own responsibility and maintain the responsible attitude of others is precisely the managerial quality that a social group expects from its leader.



**Figure 5.** Functional and graphic model of reaching stage N1 Formed by the authors

N23. Development of psychological thinking. A social leader in the system of ensuring public safety and security needs to study the psychology of everyday thinking: why people believe in implausible things, how they form and change their views, why expectations distort judgments and how to make more informed decisions. They need to be able to apply scientific methods to evaluate claims, understand evidence, and understand why people so often make irrational choices. Instead of hasty, automatic, instinctive, emotional and stereotypical thinking, it is imperative for a social leader to rely on slow, mentally strenuous, purposeful and analytical thinking. He must have the tools to help him learn to think independently and analytically, to value facts more than his own experience (Figure 6).

Thus, we characterize the stages of achievement N3 "Public safety and security activities":

N31. Building a network of public servants to ensure safety and security. The tasks of such a network are quite diverse - ranging from a better service in the provision of public services to finding solutions in difficult geopolitical situations in Alytus County.

N32. Formation of a team of public managers. The development of public managers is an individual mental and professional transformation, in particular, work with a personal strategy and motivation (mentoring), and the creation

of an attractive employer image for public service bodies and ensuring public safety and security.

N33. High-quality training and exchange of experience for the new generation of public servants. Creation of practical online and offline programs for the development of institutions and the implementation of reforms, the creation and translation of case studies, the launch of an online platform for the preservation and dissemination of the best practices in ensuring public safety and security (Figure 7).

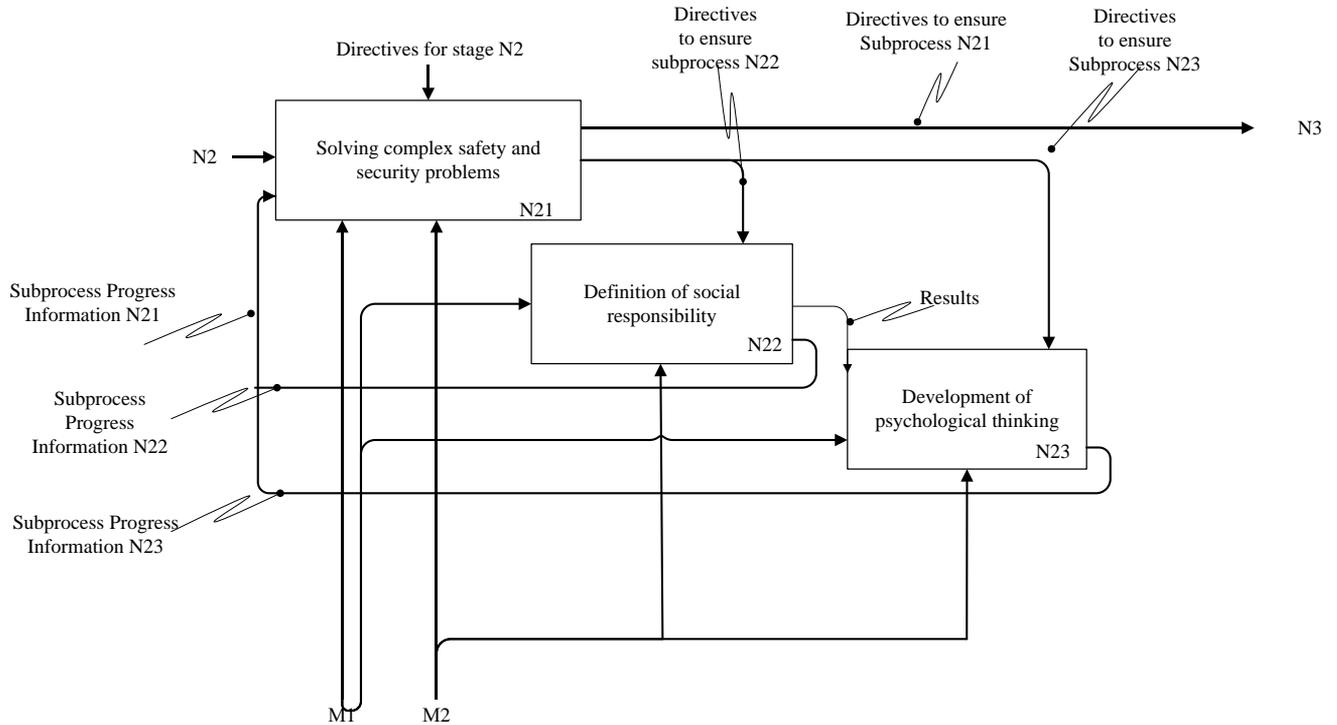
Since each individual and each team has their own unique state of development and readiness for change, the initial challenge for Alytus County will be to diagnose public institutions and teams, help those in need of security, and build reform teams. But in the end, a new common culture of social leadership in the system of ensuring public safety and security must appear.

Public administration reform is one of the major challenges for Alytus County. An effective public safety and security system is one of the main factors in the competitiveness of Alytus County. Taking into account the European perspective of the country, the functional model of a modern service-oriented state is one of the directions for modernizing the public service and effective human resource management, the tool for building which should be the Center for the Development of Social Leadership in Public Administration to

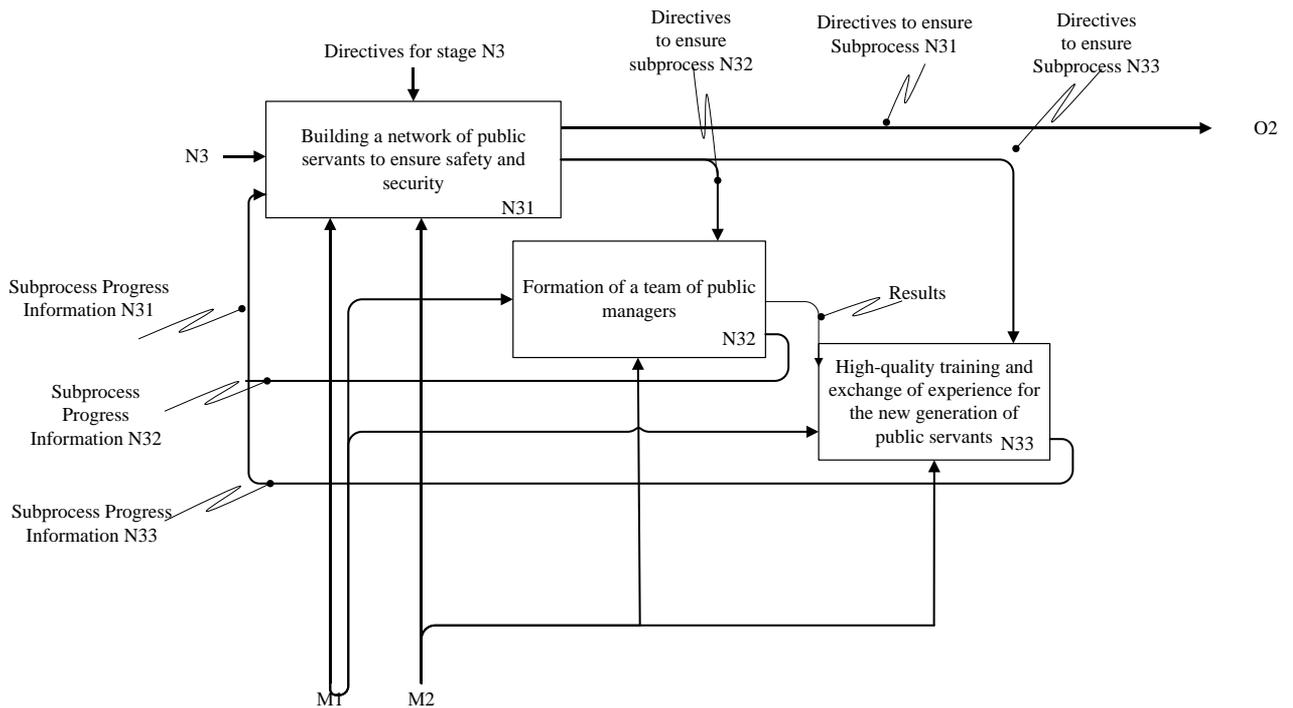
ensure security and safety.

Having such a structure, it is important to understand how exactly programs for the development of social leaders in public safety and security can look like, given that the Program for the Development of Social Leaders in Public

Administration aims to find and support those leaders from different fields (in particular, business, science, culture) that can quickly adapt and become active at various levels of safety and security, from local government to senior management in Alytus County.



**Figure 6.** Functional and graphic model of reaching stage N2  
Formed by the authors



**Figure 7.** Functional and graphic model of reaching stage N3  
Formed by the authors

## 5. DISCUSSIONS

Discussing the results of the study, it should be noted their scientific difference from similar ones. So, for example, scientists are actively considering today [13-15] how social leadership affects public administration. Based on the realities of our time, it is believed that a leader with leadership qualities in public administration means, first of all, the rejection of coercion in the interaction of the leader and subordinates.

At the same time, such studies focus not only on social leadership, but also on innovation in the context of ensuring safety and security [16, 17]. Since the modern information society differs significantly from the previous industrial one in its attitude to innovative processes, the formation of an innovative environment becomes the basis for its development. The entire infrastructure of society is connected to this - the economy, the public administration system, science, culture, education, business, etc. That is why it is extremely important in today's environment, in which changes in technologies and processes occur very quickly, the introduction of the concept of innovative leadership in public safety and security.

Modern scientists [18-20] say about public safety and security that both public administration in general, and leadership, and leadership are multifaceted and ambiguous phenomena. Accordingly, there is a need to consider and clarify individual concepts that clarify the essence of the manifestations of leadership in general and innovative social leadership in particular and the features of these manifestations in the public service system. Many are called leaders only because they are at the top of the administrative pyramid. But real leaders-leaders are distinguished by the presence of such a specific property as the ability to select for each specific situation the most effective mechanism for influencing subordinates and the ability to lead effectively.

Despite this, it should be noted that the results of the study obtained by us have a difference, which is well manifested in the methodological approach to the formation of social leadership in ensuring public safety and security. It is the model detailing of each stage of the formation of social leadership in ensuring public safety and security that is a vivid example of the difference from its predecessors.

## 6. CONCLUSIONS

Summing up, we can summarize and come to the conclusion that the processes currently taking place in society are characterized by a change in the development models for ensuring public safety and security, which should contribute to the harmonization of the interests and relationships of a person, society and the state. These processes are very complex and contradictory. The decisive role in these changes belongs to the managers of the new generation: leaders in the system of ensuring public safety and security, bright personalities, leaders who own innovative management technologies and are able to resolve social and managerial contradictions and conflicts. The modern period is increasingly convincing that it is not enough for a manager in the field of public administration to be just a professional. He must not only be a talented leader, but also a social leader who masterfully masters the ability to grow talented leaders from among his subordinates and has an arsenal of the latest effective management technologies.

The system for ensuring public safety and security is

constantly undergoing significant changes. In this regard, understanding and awareness of the modern role of the security culture itself and its management is of great importance. In this context, social leadership in the system of ensuring public safety and security acquires weight and significance as the central problem of activating professionally employed human resources.

We tried to prove by the conducted research that the role of social leadership in ensuring public safety and security is also due to the modernization of the approach to a public authority as a social microsystem, it is this approach that gives extreme priority to the problem of interpersonal interaction in the format "subject of safety and security - object of safety and security".

According to the results of the study, the authors obtained certain results. Based on the results of the study, a number of models were obtained in the article that contribute to a better understanding of the process of forming social leadership in the system of public safety and security. The elements of novelty presented in the results of the study are depicted using a new methodological approach. The study has a limitation in the form of not taking into account all aspects of the formation of social leadership in the system of public safety and security. However, in the future, it is necessary to expand the modeling of the formation of social leadership in the system of public safety and security.

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