Annals of the Academy of Romanian Scientists
New Series on Economy, Law and Sociology
ISSN 2067-5704   Volume 6, Number 2 / 2023   79

APPLIED SCIENTIFIC RESEARCH ON THE IMPLEMENTATION OF KNOWLEDGE MANAGEMENT IN THE OPTIMIZATION OF THE NATIONAL SIGNALING INFORMATION SYSTEM

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Rezumat. *Lucrarea științifică își propune să prezinte o abordare a procesului managerial specific cunoștințelor prin crearea unor structuri manageriale care să asigure suportul și coerența deciziilor în domeniul creării, achiziționării, transferului, împărtășirii și folosirii eficiente a cunoștințelor. Ținând cont de faptul că în fiecare stat membru sau asociat al Spațiului Schengen funcționează un singur punct de contact al Sistemului Informatic Schengen dar și de diversitatea culturală sau pregătirea profesională a angajaților, managementul cunoștințelor se impune ca un liant între centrele situate în statele membre, precum și între angajați. Implementarea managementului cunoștințelor are rol esențial în conștientizarea celor care conduc organizații de faptul că inovarea se bazează tocmai pe transformarea capitalului creativ în generarea de noi cunoștințe și idei. Rolul managementului este acela de a integra cunoștințele tuturor angajaților și de a forma câmpuri de cunoștințe organizaționale de natură rațională, emoțională și spirituală. În timp ce tehnologia acționează ca integrator numai asupra cunoștințelor explicite, care sunt prin natura lor cunoștințe raționale, managementul acționează asupra tuturor formelor de cunoștințe. Managementul cunoștințelor trebuie să creeze o cultură care să stimuleze creativitatea și un sistem motivațional care să o susțină.*

Abstract. *Scientific work aims to present an approach to the managerial process specific to knowledge by creating managerial structures that ensure the support and coherence of decisions in the field of creation, acquisition, transfer, sharing and effective use of knowledge. Taking into account the fact that a single point of contact of the Schengen Information System operates in each member state or associate of the Schengen Area, but also the cultural diversity or professional training of the employees, knowledge management is required as a link between the centers located in the member states, such as and between employees. The implementation of knowledge management has essential role in making those who run organizations aware of the fact that innovation is precisely based on the transformation of creative capital into the generation of new knowledge and ideas. The role of management is to integrate the knowledge of all employees and to form fields of organizational knowledge of a rational, emotional and spiritual nature. While technology acts as an integrator only on*

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explicit knowledge, which is by nature rational knowledge, management acts on all forms of knowledge. Knowledge management must create a culture that fosters creativity and a motivational system to support it.

1.   Introduction

One of the most defining characteristics of the European Union has been the freedom of movement of people, the elimination of internal border barriers, and the equal treatment of those who cross borders. The principles of free movement in the Schengen Area have been tested as a result of the Covid 19 pandemic and have sparked discussions about the need for a reform of the free movement area or whether it is in "crisis".

The Schengen Borders Code regulates a common package of codified rules applicable to the Schengen Area [7]. These regulations give Member States the choice between random, spontaneous checks at border points and internal border controls for a set amount of time and under specific circumstances.

On the other hand, according to the most recent legislative amendment of the Schengen statute (Schengen governance package), it has increased the control of the EU, with a view to the smooth implementation of the Schengen acquis by the member countries. In the context of Schengen cooperation, the values of the EU Treaty - fundamental rights, the rule of law, and democracy, respectively - serve as prerequisites for "earned or worthy confidence."

Guaranteeing the fundamental principles of the EU and the rule of law are preconditions for "deserved or meritorious trust" in Schengen cooperation and the EU's principle of mutual recognition, used in several sectors of Schengen activity. The justification of the free movement area of the EU is based on compliance with the legislation in force and on encouraging the practical advantages of the Schengen rules and the fundamental rights of the persons concerned.

Currently, the Schengen area covers more than 4 million square kilometers, with a population of almost 420 million people and includes 27 countries, including 23 states of the European Union and all states of the European Free Trade Association (Switzerland, Norway, Liechtenstein, and Iceland) [4]. On January 1, 2023, Croatia became the 27th full member country of the Schengen area. Internal border controls with Romania, Cyprus and Bulgaria have not yet been removed, and Ireland is not part of the Schengen area. The security of the EU territory is the responsibility of the member countries that manage the border management and from this point of view,

the management of security risks in any sector of the external border is the responsibility of the European community, not a country [10, 12].

Considering these aspects, the eastern, southwestern and northern border of our country is the external border of the European Union, and our country must ensure increased security measures, especially since it is positioned on the route of migrants from the Middle East, Asia and Africa. The European concept of integrated border management is also an integral part of the strategy that the European Union has developed to "compensate" for the abolition of internal borders in the Schengen Area.

The justification for this concept is based on the hypothesis that a technical collaboration at the EU's external borders and increasing operational capacity is useful both for discouraging migration, reducing cross-border crimes, and for favoring the movement of goods and people. The integrated border management model served to develop the EU's "risk analysis" as well as to mention the European IT systems for border control and information transfer (eg Schengen Information System) [14].

Under the regime of integrated border management, national authorities have the obligation to cooperate not only with each other, but also with important EU institutions. within the scope of the law (e.g. EU_Lisa, Europol and Frontex) as well as with third country institutions [15].

2. Support in putting knowledge management into practise inside the National Signaling Information System

Due to legislative and technological advancements within the European Union, Romania was required to create an IT system as part of the Schengen area accession process. It did so by establishing the National Signaling Information System, which is compatible with the Schengen Information System of the second generation.

The Ministry of Internal Affairs is in charge of overseeing and managing this national computer system, which includes alerts and signals of both national and Schengen relevance that have been issued by our nation's competent agencies. [1, 2].

In a global context, this system's function is to efficiently support member nations' cooperation in the fight against drug trafficking, human trafficking, and cross-border crime. It will also serve a strategic purpose, namely securing the EU's eastern external border, following our nation's entry into the Schengen area. In October 2010, our country connected to the Schengen Information System, through SISone4ALL, an intermediate solution developed by Portugal. SISone4ALL represents a variant of the SIS1+ solution, respectively the national section belonging to countries that are not part of the Schengen Area is obtained by copying the Portuguese national section9SISone4ALL including the SIRENE application. The National Signaling

Information System is composed of a central system that contains the SINS database, the interface with the national system that updates/consults the SINS, the interface with the SIB solution and the interface with the central SIS II system that has the role of accessing the direct query of the Central System SIS II. In our country, the central authority responsible for the proper functioning of this system is the Ministry of Internal Affairs through the SIS National Center.
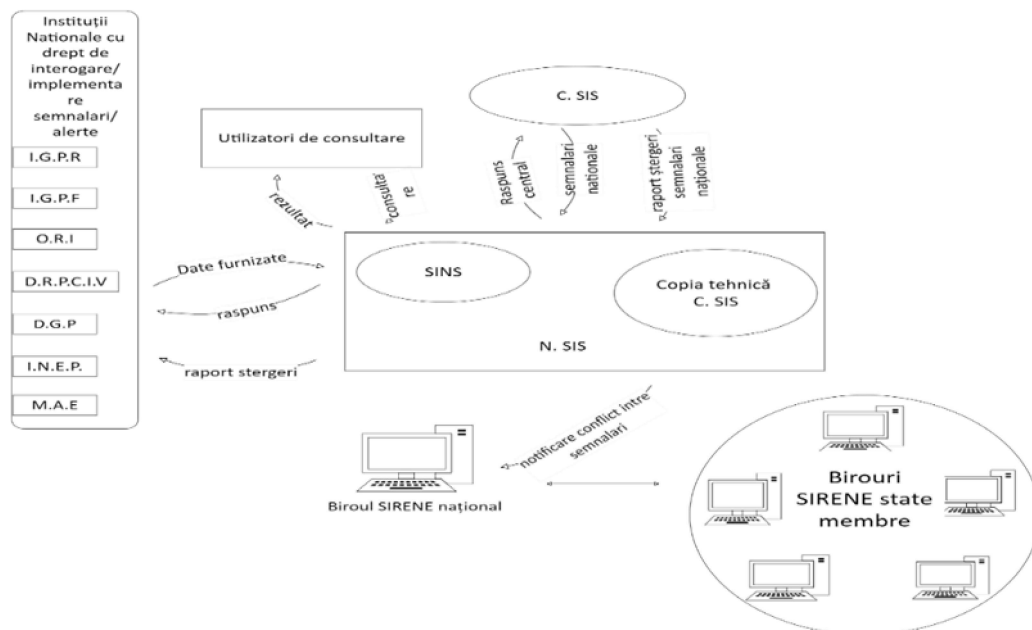

Fig. 1. Architecture of the National Signaling Information System

The National Signaling Information System manages signals introduced by the Romanian state, and together with the national CS.SIS copy, forms N.SIS for Romania.

According to the legislation of our country, namely Law 141/2010, the legal framework for the National Signaling System corresponding to the Schengen II Information System was implemented. In the field of cross-border criminality, this information system has a strategic role especially in the exchange of information between the law enforcement authorities of the member states. In this way, the law enforcement authorities in our country have the possibility to query the databases and also to supply them with operative information [3, 16].

Noteworthy is the fact that the National Signaling Information System's internal functionality grants access to all hierarchical levels of stored information to any law enforcement official working for the government.

Through the SIS National Center, the central authority, namely the Ministry of Internal Affairs, ensures the maintenance and operation of the system.

The National SIS Center operates under an organizational structure that uses and applies processes, public policies, programs based on national and European legislation.

The manner and responsibility of each component in the organizational structure are provided in an Organization and Operation Regulation [2]. The National SIS Center has a dedicated organizational structure as represented in fig. 2:
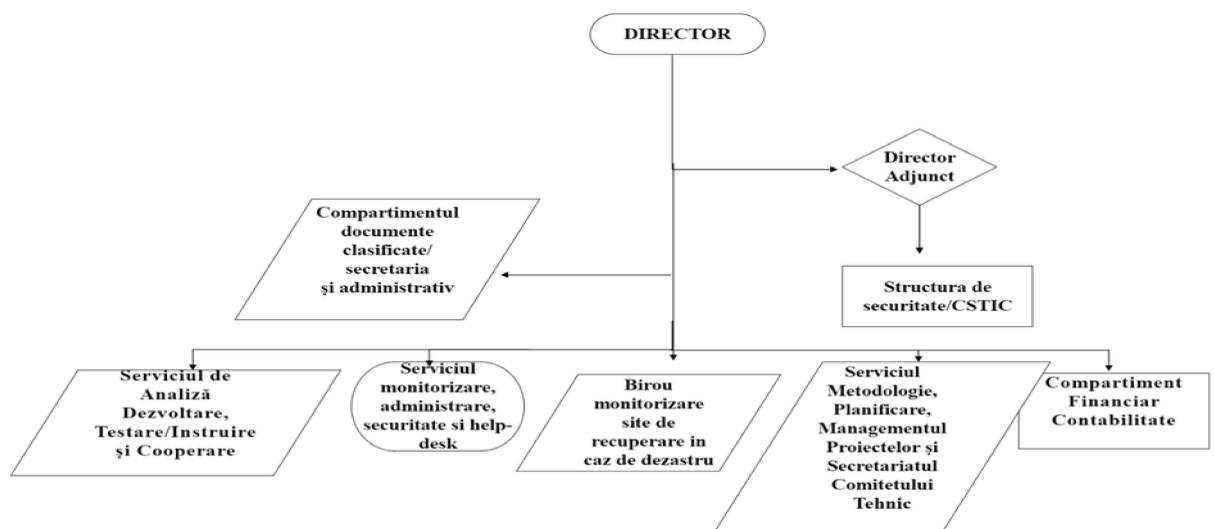

Fig. 2. Organization chart of the SIS National Center [2]

The managerial act of the Center is exercised by a director who is assisted by a deputy director, the director leads the entire activity of CN SIS and represents it in the relationship with the other units or third parties. The deputy director is subordinate to the director and coordinates the activity of the structures

The advantage of integration into the Schengen space is represented by the elimination of internal border checks between member states and the application of the Schengen acquis, an external border being established, where checks are carried out according

to a common set of rules in the field of migration, asylum and visas, as well as rules that it refers to judicial, customs and police collaboration.

Each member state is periodically evaluated by the European Union to check whether the established norms are respected and applied. The component of the managerial process in an organization is represented by knowledge management and forms the link between its strategic and operational management.

When we discuss an organization's adoption of knowledge management, we're talking about one where knowledge has taken centre stage as a resource and where managing it calls for new duties and a distinct, cohesive area.

In most organizations, the development of a knowledge-specific managerial process is considered by creating managerial structures that ensure the support and coherence of decisions in the field of creation, acquisition, transfer, sharing and effective use of knowledge.

Taking into account the fact that a single point of contact of the Schengen Information System operates in each member state or associate of the Schengen Area, but also the cultural diversity or professional training of the employees, knowledge management is required as a link between the centers located in the member states, such as and between employees.

Thus, a priority is the knowledge sharing strategy to increase the average level of organizational knowledge and to aim for professional excellence, especially since our country is not a full member of this space.

Management is a much more powerful non-linear integrator than technology and associated processes.

The role of management is to integrate the knowledge of all employees and to form fields of organizational knowledge of a rational, emotional and spiritual nature.

While technology acts as an integrator only on explicit knowledge, which is by nature rational knowledge, management acts on all forms of knowledge.

It should be noted that technology is a rigid integrator, while management is flexible and adaptive.

However, management is a process, in which the result of integration depends on the talent and thinking of each individual manager.

If the manager is goal-oriented, then he will act mainly on knowledge using his institutional decision-making authority.

If the manager is inclined towards a psychological climate as favorable as possible for the professional development of subordinates, then he will act on both rational and

emotional knowledge, contributing to the creation of an adequate organizational culture [9].

Romania's advantages at the time of acceptance into the Schengen Area	Conclusions on integration into the Schengen Area
The journey through Europe will no longer be marked by stops at the border, when crossing from one state to another When we discuss an organization's adoption of knowledge management, we're talking about one where knowledge has taken centre stage as a resource and where managing it calls for new duties and a distinct, cohesive area.	Crossing the internal borders can be done at any point, without performing any control on people. Every day, around 3.5 million citizens cross an internal EU border
Freedom of movement is maximum and goods and capital flow freely	There are no longer any lines at land border crossings with Bulgaria and Hungary. At the air border, checks will be removed for flights to or from destinations located in the Schengen Area. Goods will move much faster and at much lower costs in terms of fuel, salaries, per diems.
European Union citizens can stay as tourists in another member state for up to three months	The only requirement is to have a valid passport or ID card.
Entrepreneurs benefit from the freedom of establishment in the state they choose, and students have the right to study in any state in the Schengen area	It will raise foreign direct investment levels, which will progress the economy, production, logistics, and, indirectly, transportation.

Table 1 Romania's advantages at the time of acceptance into the Schengen Area

Leadership is the most complex and powerful non-linear organizational integrator. It simultaneously acts on individual rational, emotional and spiritual knowledge contributing to their integration into strong organizational fields. The fundamental difference between a leader and a manager is that the leader does not impose his

decisions by force from a managerial position, but makes an effort to influence people by acting especially on emotional and spiritual knowledge.

Leaders are valuable integrators because they manage to form an effective motivational system that leads to the integration of knowledge [5]. Stimulating creativity within the SIS National Center can be done through a motivation system based on both financial and other rewards. It is known that the generation of new knowledge and ideas cannot be done by itself, nor under the pressure of managerial authority or fear. Knowledge management has an essential role in making those who lead organizations aware of this reality and the fact that innovation is based precisely on the transformation of creative capital into the generation of new knowledge and ideas.

Knowledge management must create a culture that stimulates creativity and a motivational system to support it [13]. According to the authors, Nonaka and Takeuchi, the "engine" of the knowledge formation process is represented by the four processes of knowledge conversion [8]. These procedures are known as personal practice.

These are chains of events through which personal experience is amplified and "articulated" throughout the organization as well. The process of improving individual knowledge and fixing it as a component of the organization's knowledge system is known as organisational knowledge development.

I propose as an idea for the personnel who operate the National Signaling Information System within the National SIS Center to exchange specialized knowledge regardless of the position held within the 3 specialized services of the Center, to have an exchange of ideas both during the activities and outside of it.

I believe that the sharing of knowledge should be carried out including at the level of the 3 heads of service as well as between them and the subordinates of the other services in order to have a closer connection in the subordinate boss relationship and in this situation the staff can express their ideas more easily without being constrained by the position occupied in the organizational chart. We appreciate the fact that the four ways of knowledge conversion proposed by the two authors can also be applied within this organization (SIS National Center) because this type of organization is in full learning and specialization process especially under the given conditions, I mean here to the real opportunity of accession to the Schengen Area, which implies that individual experiences are disseminated throughout the Center to amplify the knowledge process for the benefit of increasing quality in the organization.

Knowledge creation is a social process between people where knowledge change is an interactive and spiraling mechanism and not just a one-way process.

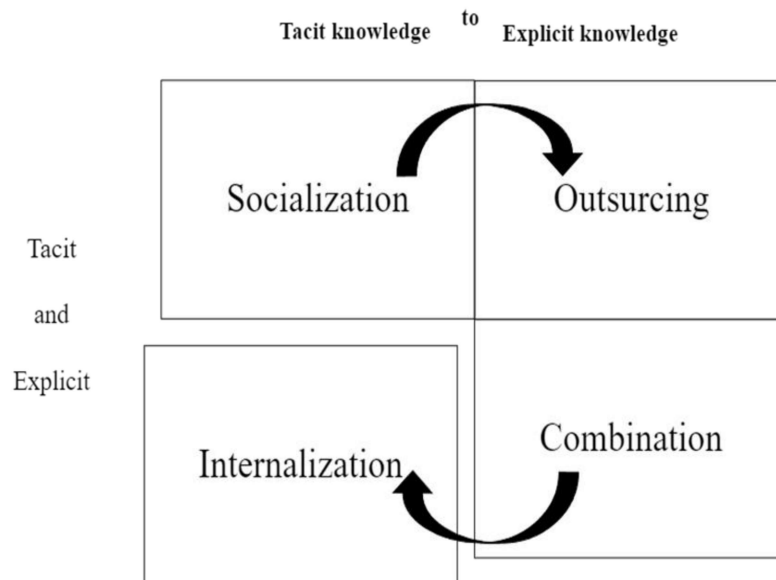Figure 3 shows the four ways of knowledge conversion:

Fig. 3. Knowledge Conversion Model [5].

Knowledge, routine, and lessons acquired go through the socialisation, externalisation, and combination conversion processes, but they never end at any of these points.

When knowledge is internalised in the tacit knowledge community of individuals in the form of common mental models, it is advantageous to the individual, his community of practise, and the organization [11].

Learning organizations are supported by knowledge management and give staff access to corporate memory in a way that both employees and the community as a whole can evolve.

As a result of the fact that corporate memory contains only explicit knowledge it is not complete.

Reuse refers to packaged explicit knowledge, even if reconversion of tacit knowledge - which is done frequently during knowledge exchange - is possible [6]. The benefit over a longer period of time is given by the reuse of explicit knowledge.

The knowledge items that are accessible through the knowledge repository are retained for the duration of their useful lives and are available to all employees, even in situations where the person seeking advice from a more experienced colleague benefits from the tacit knowledge reuse. According to several specialists, the opportunity for

success in relation to global competition is the power to collect organizational learning, judiciously reuse knowledge through practical methods and select it in more agile validation of difficulties, essential analysis and decisions in strategic directions.

Managers can make smarter decisions by tapping into their organization's memory. It is possible to implement this modality when people use the knowledge, information, and data that are stored in repositories.

Conclusions

We have come to the conclusion that the training of the staff within the SIS Center, staff who directly manage the National Signaling Information System, is a necessity that must ensure compliance with the principles of opportunity and efficiency based on "lessons learned".

One of the solutions proposed to improve the staff within the SIS Center would be to identify potential leaders and motivate the staff because: "Behind a capable man there are always more capable men and women." Personnel is one of the most important factors to access efficiency and rationality. Staff cooperating for a common vision can create an incredible experience.

Two elements are important in an organization: who holds the decision-making power and what rules or procedures must be followed to achieve the organization's goals.

A well-positioned manager, such as the director of the SIS National Center, has the opportunity to impose his own values or beliefs, having the ability to step outside the borders of a previously created culture, in a much more rigorous, too traditional way, determining the employees to understand that it is in their interest to accept other limits, other perspectives, other conditions of adaptation to internal or external changes in the organization at the time of our country's accession to the Schengen Area.

We have concluded that the distinctive connections and organisational procedures that result in the accomplishment of goals constitute the fundamental elements of management.

Because management processes knowledge, something that technology is still unable to accomplish, we think that management is a greater integrator than technology.

Technologically we can process data and information. However, management has developed more on the rational dimension and acts through predominantly rational mechanisms.

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