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THE ROLE OF EMPLOYEES OF THE NATIONAL SAFETY AUTHORITY IN THE SUPERVISION OF SAFETY MANAGEMENT SYSTEMS IN RAIL TRANSPORT

Summary. There are many scientific studies related to the functioning of safety management systems, but they often focus on situations within business entities. The area of safety, however, is also shaped by advisory institutions, publishers, universities and regulators. In this study, we described the interface between the railway safety regulator in one of the EU Member States and the business entities supervised by it. In order to achieve this, we conducted 12 semi-structured interviews with the regulator's employees responsible for performing inspections. It can be concluded that an inspection resembles a theatre stage where everyone plays their part. During an inspection, inspectors adopt the approach of an advisor or a guard, depending on their subjective feelings about the course of the inspection. The obtained results were discussed along with the regulator's management and used to assess the effectiveness of the activities undertaken by the regulator in the given area during the last few years.

1. INTRODUCTION

For many decades, research in the field of safety science has focused on topics related to technical facilities and their users and has postulated, for example, that some people are by their nature more prone to accidents [7]. In the 1970s and 1980s, however, it was increasingly noticed that organisations played a significant role in shaping the level of safety. It is within the organisation that decisions are made regarding the technologies used or the methods of recruitment and training. Such decisions often do not have immediate effects but create conditions for the development of events, which Reason presented graphically at the turn of the 1980s and 1990s in the form of a model which is now known as the Swiss cheese model [24, 32].

The transfer of responsibility from employees to the organisations employing them made it necessary to systematise the way these organisations operate, so that they could take responsibility for the consequences of their decisions. This goal was achieved by promoting safety management systems in line with the trend of creating other types of management systems – for example, the first version of the ISO 9000 series of quality standards dates back to 1987. It was quickly realised that safety management systems are one of the most influential concepts proposed by safety science. Currently, the obligation to

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implement such systems is present, inter alia, in some types of manufacturing enterprises [25], in the food industry [26] as well as in air [18] and rail transport [3].

However, the current popularity of safety management systems has resulted not only from changes in the way the role of organisations is understood in shaping the level of safety. The second important reason is the evolution of the approach to regulating economic activity by public authorities [14]. At the beginning of the second half of the 20th century, the legal regulations of Western countries still described in detail the technical aspects of the activities being taken by individual industries. In 1985, the concept of a 'new approach' emerged in Europe, in which the law only defines goals and organisations have the right and obligation to choose how to achieve these goals.

2. THEORY

2.1. Background

This study was based on data obtained with the help of the national safety authority for rail transport (NSA), whose employees provided key information that was used as the basis for analysis. The NSA is an official organization in each EU Member State, that serves as a supervising entity for each country. The scope of its operations and authority is wide, but the key aspect is that it is authorized to supervise and audition all entities operating in the country's rail market. This means that the inspectors employed by the NSA work with all kinds of companies, organizations and institutions that take part in the rail market and, therefore, need to adhere to the legal requirements set in the relevant documentation regarding safety. The role of the NSA is to find and point out shortcomings in safety management and procedures, as well as to promote a healthy safety culture among all entities it works with.

The NSA typically operates as a supervisory authority, investigating and auditing entities involved in the rail market in the country. Typically, this supervision is cooperative. It is not the role of the NSA to needlessly make operations difficult for the companies and institutions it audits. Its role is instead to verify that safety measures and procedures that have been put in place by these entities adhere to the legal requirements and are appropriately followed. In the most egregious cases of fraud and repeated non-compliance, the NSA's role is to report the offending entity to the country's prosecutor's office to be further investigated by the legal authorities. By itself, the NSA does not have the authority to force compliance or punish offending entities. Inspectors, who identify and point out cases of non-conformity, do not typically offer direct solutions to problems. Instead, due to the specificity of operations of individual entities, such solutions should be created by the entities themselves in whatever way best fits their needs and capabilities. Inspectors, however, engage in dialogue with the entity's employees and can provide general advice pertaining to the nature of the problem. A more comprehensive description of the relationships between inspectors and those inspected is provided in [20].

For several years, the NSA has been implementing measures aimed at supporting inspectors in their work. These include dedicated ICT systems, the development of guidelines defining the work standards of an inspector and tools supporting the flow of information – an idea box or the institution of an employee representative. Inspectors have the opportunity to participate in training courses on corruption and ethical standards, as well as their professional competencies and the so-called soft skills used during contact with representatives of supervised entities. Importantly, these activities cover all employees working in local branches, for whom supervision is dominant in the scope of their duties.

2.2. Current knowledge

Many scientific studies have attempted to determine the real impact of the idea of safety management systems on the functioning of business entities. Some of them indicate the positive aspects of implementing procedures (e.g. in medicine [11, 16]). Others believe the process is the cause of the increase in internal bureaucracy [34], sometimes even called 'safety clutter' [30, 20]. Publications indicate the problem of reducing the authority of people who have knowledge of real safety problems if they are not able to talk about them in a manner consistent with the requirements of procedures [1]. Changes in behaviour due to the ease of verifying decisions recorded in all kinds of reports are also

important [21] and are sometimes even treated as a social phenomenon, leading to the creation of an 'audit culture' [28]. Alternative proposals are also being developed, including those postulating a drastic reduction in the number of procedures [6], increasing their flexibility in order to increase people's potential to counteract negative situations [15] and shifting the centre of gravity from the organisation to the so-called safety culture [8, 19]. An important aspect of safety management systems is also the popularisation of risk management procedures [36].

All the studies discussed above focused on the situation within business entities. However, this is not the only possible perspective. In his 1997 article [31], Rasmussen argued that the level of safety is also influenced by the environment of the organisation and should be taken into account, for example, when examining the causes of accidents. Le Coze lists five types of entities that shape the area of safety [5] (regulators, business entities, advisory institutions, publishers and research workers), emphasizing that regulators play a special role, as they can promote certain methods or concepts. The ways in which regulators influence business entities are also being researched but in areas that have been studied for many years – such as the oil and gas industry in Norway [10].

This article describes the results of a project implemented in cooperation with the NSA, which supervises all entities operating in the rail market in one of the EU Member States. For several years, its representatives have been actively shaping their image of a 'friendly authority' through activities focused around a declaration on the development of a safety culture. However, the information obtained from the representatives of the NSA shows that its activity has not been the subject of scientific research.

Regardless of their form or underlying concept, activities aimed at achieving a state of safety can be referred to with a common generalised name: risk reduction measures. In line with an old saying from a well-known management philosophy, attributed to Deming [17], what cannot be measured cannot be managed. Therefore, in order to manage safety, safety managers should apply a measure showing the effectiveness of the solutions invoked. Risk can be such a measure when treated as a value obtained using mathematical models. The success (or lack of success) of safety management systems can therefore be confirmed by the risk assessment of identified hazards.

In mathematical models, risk is treated as a combination (usually a product) of the possibility of hazard activation and a measure of the effects or losses resulting from this activation. Therefore, the measures that are planned to achieve safety are constructed in a way that reduces the possibility of activating hazards or the effects or losses of this activation. Regarding the second risk component, these measures are also called mitigation measures [37]. The ability to effectively mitigate risk requires a certain level of awareness of what risks are most significant or are likely to occur most often. Knowing the weak points and most likely fault points of any system helps focus risk mitigation efforts on areas that present the most severe likelihood of activating hazards. However, such work also needs to be done with as little interference to the actual operation of assessed entities as possible, as the mere act of auditing has been linked to disruptions in following proper procedures [27].

The concept of a risk reduction measure is used in relation to the elements of safety systems or a group of these elements (forming a whole – a subsystem) that have the possibility of influencing the hazard sources. This impact can take place in various ways and to different extents. It may consist of eliminating hazard sources, limiting exposures to hazard sources or providing information only about the possible existence of hazard sources [12]. Risk reduction measures are also called safety measures. These measures reduce the frequency of hazards (the possibility of activating hazards) or mitigate the effects of these hazards, thereby aiming to achieve or maintain an acceptable level of risk.

The aim of the project, the results of which are presented in this article, was to describe the interface between the NSA and rail market business entities. The scope of research was limited to the relations between inspectors (persons carrying out supervisory activities) and representatives of entities, as this made the obtained description as dense as possible. The interviews with inspectors focused on the supervision activities they carry out in their daily work. The collected material allowed for the formulation of answers to the following research questions:

1. How do the inspectors of the regional offices of the NSA define their role in shaping the attitudes and actions of representatives of rail market entities?
2. What are the relations between the NSA and the rail market entities it investigates?

The research questions determined how the collected data were interpreted. The first question refers to constructivism and emphasises the feelings of inspectors related to the conducted supervisory activities. The second question was formulated from a realistic perspective, according to which the inspectors' answers were used to describe the objectively existing relations between the NSA and the rail market entities. Part of this issue is the overall nature of the inspectors' relationship with the employees of the inspected entities. For years, there has been a debate on the nature of the inspectors' role, known as the inspector's dilemma; specifically, the debate centres around whether their role should be more focused on control or educative activities [2]. This paper shows the attitude of the NSA employees that have been reviewed.

Section 3 describes the adopted research method (i.e. the method of selecting participants and the method of collecting and analysing data). There were also issues related to ethics, which to some extent influenced the division of tasks between the co-authors of this article. Section 4 provides the answers to the research questions. Section 5 describes how the project was received by the NSA. The article is summarised in Section 6.

3. RESEARCH METHOD

3.1. Participants

Unlike quantitative research, which is based on statistical laws, qualitative research does not have to cover a specific number of cases. Instead, it needs to meet the criterion of representativeness (i.e. the situation in which the research results will correctly reflect the studied phenomenon) [9]. The concept of theoretical saturation, derived from the grounded theory, is often used to verify this criterion [35]. Although it is impossible to calculate how many cases will allow theoretical saturation, it is possible to find some estimates based on previous research experience. For example, Kvale and Brinkmann [23], quoted in [35], reported that in the case of interviews, this value ranges from five to 25 people.

The study described in this article concerned the professional identities of inspectors employed in seven local branches of the NSA. About 10 people are employed as inspectors in each of the branches, which translates into an estimated total population of 70 people.

The estimated sample size of this study was based on a comparison of the above information and experiences from other studies with similar research questions (e.g. 13 participants in the study of professional identity of safety specialists [29]). It was assumed that the number of people required to meet the representativeness criterion should not exceed 14, which gives an average of two people per branch. Such information was provided to the representatives of the NSA who were authorised to issue consent to conduct the research.

A separate issue is determining who is to take part in the study. Two concepts were considered:

1. The appointment of people participating in the study by a coordinator from the NSA
2. The self-reports of participants.

Both concepts have advantages and disadvantages. The top-down designation of participants meets the recommendation of maximum sample variability with respect to criteria such as seniority and previous work experience. On the other hand, there are also potential problems [4, 9, 13]:

1. Persons appointed by the NSA may not be willing to participate in the study, which may reduce the value of the information obtained in the interviews and, in extreme cases, make it impossible to conduct the study (due to the respect of the principle of informed consent).
2. The fact of appointing this and not another person may provoke or refresh conflicts within the teams of individual branches.

On the other hand, the alternative self-reporting approach could be viewed as lacking control over the characteristics of individual participants [9], which could affect the assessment of the quality of the research carried out.

After analysing this issue, the research team decided to implement the first of the concepts (i.e. asking the NSA coordinator to nominate participants), taking into account the following principles:

- two people should be indicated from each local branch

- if the inspectors from a given local branch usually work in the same teams all the time, the indicated persons should not belong to one team
- the indicated persons should have different lengths of employment at the NSA and (if possible) different lengths of employment in general
- the minimum length of employment is four months, starting from the date at which a full authorisation for work was obtained
- gender should not be taken into account when identifying participants.

The participants who were indicated based on the above criteria were not consulted in any way during the selection process; only the directors of local branches could have an advisory vote. Ultimately, 12 inspectors took part in the study, whose length of employment at the NSA, at the time of obtaining approval for the study, ranged from six months to about nine years.

3.2. Data collection method

Due to the COVID-19 pandemic, and in order to reduce organisational burdens, all meetings with research participants were held using electronic means of communication – the MS Teams program – which is fully licensed by both the NSA and the university. The participants were contacted twice: once for an introductory and again for the main interview.

The introductory interview aimed to inform the participants of the study about its purpose. It was formulated in a manner general enough to reduce the risk of distorting the responses obtained [4]. The participants were informed that the study concerned how the relations of the local NSA branches with the railway entities they supervise are shaped. This was done to prevent excessive concentration of respondents on their own activities given that the answers to the research questions were to result from the analysis of the obtained content. Moreover, during the introductory interview, participants were informed they were free to refuse to participate in the study; they were also told how their personal data would be processed and informed about other ethical and legal issues (also see Section 2.4).

The discussion on organisational issues during the introductory interview acquainted the participants with the researcher. Therefore, both interviews were always conducted by the same person. The main interview was semi-structured. Its conspectus underwent slight modifications during the course of the study; the final version is presented in the appendix.

As part of the study, 12 interviews were conducted, but for time reasons, the last one was excluded from the main analysis and was only used to verify the fulfilment of the theoretical saturation criterion. The interviews were conducted from July to October 2021. In total, 384 minutes of recordings and 130 pages of transcripts were obtained.

While the list of questions asked during the main interview was being formulated, it was decided that the topic of perceiving one's role in shaping the attitudes and actions of representatives of the rail market entities would not be raised directly. It was assumed that the answers to such a direct question would be less reliable than the conclusions drawn from the answers to several questions about the attitudes and actions of inspectors. In particular the questions asked inspectors about:

- perceived reasons for non-conformities identified during the supervision process
- opinions on which areas of supervision make the most sense
- situations in which representatives of entities request support
- things that were perceived by the inspectors as their successes.

3.3. Data analysis method

The collected data were analysed by the first author (PS). QDA Miner Lite software and an MS Excel spreadsheet were used for this purpose. Based on the analysis of the content of the questions and the transcription of the first two interviews, a list of 18 codes was developed and grouped into four categories: general information, the role of inspectors in their own eyes, the description of the relationship between entities and the NSA and the functioning of the inspector within the NSA. Then, each transcript was subjected to a coding process in which interview fragments were assigned particular

codes. Moreover, all statements requiring analysis were assigned to at least one code. The coding process was not applied to fragments including personal information about the inspectors (such as their education or experience) or that described the inspection process as long as it was just a faithful representation of the applicable legal procedure.

In the next step, all encoded fragments were exported to an MS Excel spreadsheet, and the process of their description started. A colour system was used in which fragments whose content was fully presented in the report were marked green, and fragments requiring re-analysis in the future were marked yellow. These activities were continued until the meanings of all fragments were transferred to the report, and, as a consequence, all fields were marked green. Then, the obtained descriptions were presented to the second interviewer (MM) for verification. The proposed answers to the research questions were developed jointly by all the authors.

It should be noted that the fragments of the statements presented in this article were subjected to minor corrections of a purely stylistic nature without interfering with the underlying message of the statements [22].

3.4. Research ethics and quality

The study was carried out based on an agreement between the NSA and the university. To the best knowledge of the members of the authors, at the time of the study, the university did not have any procedure related to obtaining consent for research involving human subjects; the researchers were bound only by the Researcher Code of Ethics. According to the provisions of this document, 'in the case of research conducted on humans, human dignity should be respected and human autonomy must be respected, ensuring voluntary participation in research, i.e. consent to research on it'. This requirement was met by providing each study participant with relevant information during the introductory interview.

The Code of Ethics contains another provision that applies to the research described here. One of the points states that 'the researcher is obliged to notify the employer if the test results indicate the possibility of events threatening the health or life of people or animals, as well as the environment'. The relevant article of the Criminal Code, which requires that law enforcement authorities should be informed about the possibility of committing certain types of crimes, is similar. In order to unequivocally meet the requirements of the above-mentioned provisions, the participants of the study were informed about the necessity to provide the information obtained, if it proves the possibility of committing a crime, in particular regarding the issues listed in the Code of Ethics.

With the exception stated above, the content of the interviews was processed in accordance with the university's internal regulations on the protection of personal data, and all study participants signed the relevant information clause. In addition, the content of the transcription interviews was made anonymous.

While possible problems with ensuring the quality of the conducted research were being analysed, two issues requiring special attention were identified:

1. One of the researchers (PS) worked in 2015–2016 as an inspector in one of the local branches of the NSA
2. The researchers (PS, MM) have limited experience in using interview techniques; so far, they have only carried out one focus study [33].

The negative impact of the above-mentioned issues on the quality of the research was avoided by assuming that MM would conduct the talks with the representatives of the branch in question. At the same time, good practices and insights from the interview process were discussed on an ongoing basis.

It should be emphasised that the authors of the study do not have specialist psychological knowledge. Hence the presented interpretations may be burdened with a cognitive bias resulting from experiences from working with students, which requires building relationships similar in nature to those between inspectors and representatives of controlled entities.

The research was carried out according to the typical semi-structured interview procedure and text analysis with the use of transcription and coding as described in the literature. Based on the obtained results, it can be concluded that this method brings the desired results under the conditions of the research task that was adopted. The conclusions from the analysis of the interviews were presented to

the management of the NSA and are being used to verify the effects of previously undertaken activities and to improve them in the future.

The selected research method has drawbacks that affect the possibility of drawing conclusions. Firstly, despite the achievement of theoretical saturation, the research sample does not allow for the transfer of the conclusions obtained to all inspectors in a manner typical for statistical research. For example, we do not know how often particular attitudes are encountered, although the shares of particular attitudes we have identified are confirmed in some of the interviewees' statements.

Secondly, we had access only to inspectors' accounts of situations in which they presented specific attitudes towards the inspected entities. The data obtained in this way is probably less error-prone compared to what we would obtain when asking about hypothetical situations (in which inspectors would talk about their ideas of their behaviour rather than their actual attitudes). The responses we obtained, however, are subjective.

Further actions could consist of supplementing the study with participant observations and/or opinions of representatives of entities subject to the NSA supervision in order to complete the picture of the actual situation at the interface between the regulatory body and the supervised entities. It might also be interesting to repeat the study with the same inspectors after some time has passed to capture the impact of the experience on changing attitudes.

4. RESULTS

4.1. Defining the inspector's role in shaping the attitudes and actions of representatives of the rail market entities

With regard to the perceived reasons for non-conformities identified during the supervision process, the inspectors were often able to indicate many possible reasons, for example:

If an inspection shows non-conformities, what do you think they result from? What is their source?

I would say either the financial or the human factor. If we carry out an infrastructure inspection and something is not done, it is either because someone has not allocated money to modernise, repair, or take some other action, or it is because of human neglect. After all, there are many things that do not require large costs, such as the legibility of railway signs, which we also verify. I think each entity has some kind of lawnmower and fuel to remove the vegetation around the signs and is able to do it, just like repainting the semaphore masts... they just don't do it for some reason, because they don't think it's important. Of course, sometimes it is also possible that someone did not know something – and this is also the third group that should be mentioned. Certain non-conformities arise out of ignorance, not knowing or having a poor understanding of the rules.

In addition to financial issues, ignorance and a lack of awareness of the rules, the statements also mentioned imprecision of regulations, negligence, omissions and staff shortages. All these elements are related to each other and can be treated as manifestations of the weaknesses of the controlled entities. As such, these elements are not entirely dependent on conscious decisions. Perhaps that is why the inspectors emphasised that detecting non-conformities is not a top priority for them and that the sense of their work lies not in the number of non-conformities but in the proper preparation of inspectors:

I believe that every inspection for which we are well-prepared makes sense – because each such inspection may reveal some non-conformities. Whether it actually happens does not really matter, as it does not affect the sense of the inspection. On the other hand, going for a senseless inspection means choosing a place without preparation, just the one which is more comfortable, picked up by chance from a map, without knowing the local conditions ... I believe that such inspections do not make sense.

Other statements indicated that it makes sense to inspect entities that actually want to change something in their functioning. The identified non-conformities are, of course, a way to motivate such changes.

All interviewees declared that they are willing to provide representatives of entities with support in solving legal problems, either directly or by submitting the question to the legal department of the NSA.

The inspectors also pointed to initiatives taken by the NSA at the central level. During the interviews, however, we tried to inquire about a situation in which a representative of the entity asked for specific advice on how to remove a given non-conformity. Most inspectors denied giving such advice:

When it comes to helping to remove non-conformities, we never say how to do it. This is what the safety management system is for, so that the entity carries out a risk analysis, sets up a corrective action card and takes actions that will be good for its business.

In some statements, however, it is difficult to say to what extent not offering this type of advice results from the inspector's beliefs and to what extent it is simply unnecessary because of close cooperation between representatives of various entities:

First of all, the market may not be small, but it is definitely not big, and it is hermetic. All representatives of the safety management system from small railway undertakings who are in our area know each other and talk to each other. They also communicate with each other about inspection results, what we found, in order to take certain actions. They also consult each other on the removal of non-conformities.

This interpretation is also indicated by the fact that the only case in which an inspector provided specific assistance that was reported during interviews concerned an entity that was only remotely connected with the railway market.

When asked about their greatest success as an NSA inspector, only a few interviewees indicated a specific inspection for which they were responsible. Most of the responses concerned the very fact of working at the NSA, the trust of superiors or the possibility of professional development:

The extension of my employment contract is certainly the greatest success, which means that my work has been positively noticed by my superiors.

One of my greatest successes is certainly that I quickly joined the team of senior experienced inspectors, and we quickly started to treat each other as equals. I was not treated as a young person who could not be entrusted with any obligation because I would not fulfil it, but we quickly became friendly as colleagues. The second very important success, in my opinion, is the trust of my superiors at work, which is reflected in the responsibility they convey to me.

I think that my success as an employee of the NSA is that I can constantly develop and that I use this opportunity. There is really a lot of training at the NSA, and we can use funding for English courses or for postgraduate studies. And I think this development is my success.

For some of the interviewees, success and satisfaction may also come from signs of respect given by the entities:

What do you consider to be your greatest success as an inspector [...]?

Success ... I don't know if I can call it a success ... The greatest joy is when someone sincerely thanks me for the non-conformity I pointed out to them. There really are some people who just think that they can't see something because ... they are in the middle of it. And an outsider perfects their way of operation. If someone tells me about it, it is a success for me.

I feel appreciated when someone calls me and asks me for advice on how to solve something.

The above statements seem to indicate that the inspectors present two approaches, or, in other words, that they take two hats with them to an inspection:

- the hat of an adviser-mentor, in which case they try to indicate to entities areas that require special attention but do not show specific ways to solve problems
- the hat of a rigorous guard, in which case they scrupulously search for any errors and attempts at cheating.

Our interviewees put on the first hat more often, which is not surprising: on the one hand, the mentor approach is consistent with the activities of the NSA headquarters; on the other hand, it is often more pleasant due to, for example, a less tense atmosphere or appreciation from representatives of entities for explaining problems. However, inspectors do not justify wearing this hat for their own comfort but with

the conviction that they are in control of the situation all the time. They detect any attempts at manipulation by entities and, if necessary, they decide when to ‘change the hat’ and tighten their method of conducting supervisory activities. From several statements obtained during the study, it can be concluded that the NSA also employs inspectors who prefer the hat of a rigorous guard and who look at representatives of the inspected entities from above.

4.2. Defining the relationship between the NSA and rail market entities

Most entities operating in the railway market have regular contact with inspectors. Therefore, they approach the NSA activities without much nervousness or fear. The inspectors themselves also try, as much as possible, to soothe emotions and conduct their activities in a calm atmosphere while making sure they do not allow corruption.

Inspectors encounter direct resistance relatively rarely. The situations described in the interviews concerned entities that are not typical participants of the railway market (e.g. commune offices) or employees claiming that the presence of an inspector affects the way they are performing their duties. Railway operators use rather more subtle strategies:

Does it happen that representatives of entities try to hide something?

[Laughs] Well, everybody tries. And it probably works sometimes. Let's face it, the inspector is not omniscient, and in some aspects, he may be less inquisitive and miss something, which suits the entities. Sometimes, they just give us a lot of papers... at least once I had a situation where I got a pile of papers. It is obvious that if you have three binders to go through, it takes some time. After the analysis, it turned out that half of the documents were duplicated or even photocopied three times.

Did you feel that it was done on purpose?

I felt that it was deliberate – let's give him papers, and maybe he won't see something [laughs].

I once waited half a day to receive materials for an inspection despite having previously given notice of what would be needed ... But this is a force majeure, I suspect, with some people.

Did they want to hide something?

No, I guess it wasn't so much about hiding as waiting. They must have thought that if I sat for a long time, maybe I would not require something or ask for something, and, therefore, maybe they would not have to look for it.

Sometimes, representatives of entities also try to steer the course of inspections in order not to bring some issues to light:

There is a safety improvement program implemented by all companies that have a safety management system. In this program, there is a list of goals to be achieved for a given year. Well, a representative comes to us, presents these safety goals and says, 'Well, here you have safety goals. Maybe I will also leave proof of achieving goals number 1 and 2 right away.' Let's say there are 10 goals in total. When he comes and says that there is evidence here ... he knows perfectly well that we will ask for proof of the achievement of one of the goals, and if he gives his documents, he counts on us not asking for another. And then we often feel that we just need to sniff a bit somewhere because maybe one of the goals has not been fully achieved.

On the one hand, the inspectors admitted that representatives of the entities were hiding various things, but on the other hand, they were quite convinced of the possibility that they could detect such situations by carefully listening to explanations and cross-checking the documents presented. Thus, up to a point, an inspection resembles a theatre stage where everyone plays their part:

Do you sometimes notice that the representatives of the entities are trying to hide something?

Notoriously, I would say. But it is my role to check that, and it is their role to prevent me from detecting it. Yes, so I find it notorious, but I believe that these are just our roles. I want to find as many non-conformities as possible, if they are present – it is not about finding something by force, but their role is to take care of the image of their company or their work so that their superiors do not see that there are any shortcomings.

When an inspector manages to prove the existence of a non-conformity, the representatives of entities most often admit it and then try to explain themselves or remove the non-conformity as soon as possible:

Usually, they say it was a mistake, that they didn't want to, that they didn't know, that they didn't have such knowledge, that they will ask for details... and then they ask, and it turns out that we are right. [...] They try to explain that it was an employee's error, usually made by someone on the 'sharp end', that the employee made a typo, that someone made a mistake, that they had no knowledge about it.

And how does such a representative react if, during the on-site inspection, non-conformities are identified that are not reflected in the documents?

Usually, they are silent... some kind of smile... this is how it looks. Or that they are short-staffed, different explanations are given ... about an external company, the absence of employees, someone has quit ... there is no answer, you know, which can be satisfactory in this situation. The fact that there is no employee present does not mean that they can skip their internal inspection or fail to see something. If you have decided to have a railway infrastructure, a siding or anything else, then, unfortunately, there are regulations: both small and heavy regulations.

Recently, I was in [city name] for an inspection. I identified one non-conformity. Then the superior came, saw it and said, 'We will repair it today.' I didn't even have to say anything.

How long an inspector will allow such a spectacle to be held depends on the seriousness of the non-conformity but probably also on their personality, approach to work and willingness to go through criminal procedures resulting from reporting an attempted fraud to law enforcement authorities:

Does it happen during an inspection that entities try to hide something from you?

Yes. And I don't like such situations very much. Then I am ... maybe not harsher, but I want to prove that ... because the way I see it, they are not trying to deceive me but are making a mockery of the NSA. So then I go deeper into checking and verifying, and sometimes I manage to prove that they cheated.

And do such situations take place often?

No, not often. Which is fortunate because it is very stressful for me. It is also about what we have to do later with the collected documents. If we really prove that a fairly large fraud took place, such as signing or forging documents, reports are filed with the prosecutor's office. I had two such inspections where many, many documents were forged, where no documents were in line with each other ... and twice there was a notification to the prosecutor's office. After that, I had to testify.

We asked interviewees whether there was a noticeable difference in the course of an inspection depending on the type of the controlled entity. The obtained answers were contradictory. Some pointed out that larger entities are more used to contact with the NSA and do not want to spoil the relationship and, therefore, start removing non-conformities with greater commitment. Others argued that in large entities, the responsibility for non-conformities is blurred, so it is easier to work with smaller entities. One of the inspectors suggested a division into more and less experienced entities, regardless of their size.

5. THE IMPLEMENTATION AND RESULTS OF THE STUDY IN THE OPINION OF THE NSA

5.1. The role and conduction of the study in relation to other activities undertaken by the NSA

The idea of conducting the study described in this article was positively assessed by the management of the NSA, which, from the very beginning, saw it as an opportunity to verify the effectiveness of solutions implemented over the last few years to support inspectors and increase the comfort of their work. The obtained results were used to verify inspectors' motivation, work methodology and attitude towards the inspected entities. The knowledge obtained in this way constitutes a kind of feedback for

the management of the NSA who have a key role in assessing the effectiveness of the activities carried out so far.

An important aspect of the decision to carry out the research was the fact that it was conducted with the participation of an independent research unit. As a result, the research methodology was prepared and controlled by research workers who were genuinely interested in describing the real picture of relations among the inspectors. If an audit entity had acted on behalf of the NSA, the obtained results could have been more biased and adapted to the potential expectations of the recipient. Obviously, had the study been conducted by the NSA (i.e. by persons on whom the inspectors are directly dependent during their work activities), it would have also been less objective.

5.2. Practical implications of the obtained results for the NSA

In the vast majority of cases, given that people with little work experience in the organisation were also selected to participate in the study, the statements given by the inspectors confirm professionalism and identification with the mission and vision of the institution that employs them. In the excerpts from the interviews, there is a noticeable motivation to perform tasks related to market supervision and the conviction that the NSA's supervision plays an important role in improving the level of safety.

However, there are also visible issues that require intervention on the part of management, especially in terms of the attitudes presented by individual inspectors, and that are related to the adoption of the approach assigned to the form of a rigorous guard towards the inspected entities. There is no doubt, however, that the use of only the advisor-mentor approach is also unjustified, as the primary role of an inspector is to conduct supervisory activities and not to provide advisory services. Therefore, putting on a rigorous guard's hat in certain situations must be considered justified. However, 'automatically' assuming the ill will of the supervised entity and exclusively presenting an approach streaked with distrust often has the opposite effect to the desired one. When the inspector plays the rigorous guard role, the supervised entity puts more effort into hiding shortcomings or avoiding scrutiny.

Another aspect is the issue of a uniform approach in the performance of supervisory activities by inspectors. As a rule, such uniformity is desirable from the point of view of the entire railway market. In practice, however, this is often difficult to achieve due to geographical conditions, the individual characteristics of inspectors and the nature of their work.

The considerable remoteness of local branches results in the lack of direct contact between inspectors working in different locations. As a result, opportunities to exchange experiences, share insights and transfer good practices are limited. Ad hoc and systemic actions are taken to unify the standards (e.g. by introducing checklists dedicated to typical areas of supervision and appointing a unit in the headquarters' structures that monitors the activities of branches on an ongoing basis, conducts periodic reviews and recommends the implementation of solutions aimed at unifying the approach).

Achieving full uniformity is also difficult due to the personal aspects of individual inspectors. These include character traits, level of experience and predispositions to work in a group – both within the organization and in relationships with the inspected entities. Therefore, many factors of this type are already verified at the stage of recruitment for inspector positions, during which candidates who meet specific requirements in this regard are preferred.

The full unification of the approach of inspectors during supervisory activities is also impossible because each inspection is different; many cases and irregularities identified in their course are unique. The supervision process cannot be carried out strictly in accordance with a universal, unambiguous algorithm. Therefore, it should be accepted that some margin in terms of the inspector's approach will always remain. Taking into account the above-mentioned conditions, the NSA consistently tries to ensure an appropriate synergy by selecting the composition of control teams, possibly in such a way that the differences related to individual character traits, competencies in specific areas or experience constitute an added value. Of course, the overriding and inviolable principle in each case is to comply with the applicable law, and in this respect, there is no room for individual approaches.

6. CONCLUSIONS

The task set by the authors at the beginning of the study was to define the method of shaping the safety aspects of rail transport. It is known from available scientific works that this field is influenced by the cooperation of not only business entities but also consulting companies, universities, publishers and regulatory authorities [5]. From this list, the most accessible type of entity was the regulatory body of the NSA, with which our university signed a cooperation agreement, inter alia, in the field of research. Moreover, as indicated in Section 2.4, one of the co-authors is a former employee of the NSA and, thus, knew the specifics of its operations. The regulatory body influences the field within its jurisdiction by issuing various types of guidelines and guides. Moreover, an important role is played by direct contact between the regulatory body's employees and representatives of market operators during the inspection. As part of the study, we decided to focus on the issue of shaping safety in the supervision process and to answer the question of how inspectors perceive their role in shaping the relationship between the NSA and the entities they deal with.

Both the guidelines and audit protocols are available to everyone on the NSA website or upon a request for access to public information. However, it should be noted that no information about the subjective feelings of inspectors can be found in this official post-inspection documentation. Hence, it was necessary to involve the management of the NSA in the preparation of the study, as this made it possible to conduct interviews with inspectors within their working hours.

The analysis of the interviews shows that the inspectors presented two main attitudes towards the entities they inspect. Most interviewees expressed the attitude of an advisor-mentor who gives entities a certain freedom of action, within the framework of the applicable law, while at the same time sharing knowledge in the field of safety. The rigorous guard's attitude, introducing an atmosphere of fear, is much less common among the respondents. Both attitudes have a substantial impact on safety aspects. The authors believe that the advisor-mentor attitude allows the representatives of entities to better understand the purpose and sense of the applicable regulations, which means that their activities are carried out in a manner closer to the idea of proper safety management.

The roles played by the interviewees varied and were dependent on the circumstances. The interviewed inspectors pointed out several strategies employed by the inspected entities to delay, obfuscate or otherwise hide issues that the interviewed were aware could be problematic. While most audited individuals cooperated with the inspectors, some have been shown to use the lack of strictly defined procedures and expectations to overload the inspectors with paperwork or act unaware of what documentation was necessary for the audit, thus delaying its delivery and slowing down the inspection process.

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Attachment 1: Main interview outline

Introductory questions - about the inspector

1. How did it happen that you became an inspector?
2. How much time do you work at the NSA?
3. What is the main area of supervision activities that you conduct?

Questions about the course of the inspection

1. Please describe the course of one of the last inspections in which you participated
2. Does it happen that representatives of entities try to hide something during the inspection?
3. Does it happen that during the inspection the representatives of the entities ask for support?

Opinion on the supervision process

1. What do you think are the most frequent causes of the non-conformities found during the inspection?
2. Please indicate the three types of inspections which, in your opinion, make the most sense?
3. What do you consider to be your greatest success as an NSA inspector?
4. Have you learned anything from the inspections?

Is there anything you would like to add?

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