

ASSET MANAGEMENT, RISK MANAGEMENT AND ROAD TRAFFIC MANAGEMENT SYSTEM

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INTRODUCTION

Road Traffic Safety (RTS) is an unavoidable every day's topic. In the world, number of traffic accidents is growing, regardless to the high level of participating of improvement contemporary intelligent transportation technologies which were developed in aim to get easier controlling of motor vehicles, respectively to get increasing of their active safety. Manufactures of all vehicle categories, in the last several years, also continuously contribute to the development of vehicle passive safety, to avoid results of traffic accidents such as minor and serious body injures as well as death of passengers, while material damages are still present. Number of vehicles on roads is large. According to the statistical data from year 2014, number of car passengers in the world is approximately 907 million's, while number of commercial vehicle which are in using is approximately 330 million's [10]. According to the previous trend, where was determined only increasing presence of vehicles on roads, from year 2006 to 2014, it can be assumed that today that number is even larger.

In the world are more presence poor and middle developed countries versus high developed countries, which indicates that also is more presence undeveloped road infrastructure where such kind of road infrastructure undoubtedly influence on occurrence of traffic accidents. According to the data from Association for Safe International World Travel (ASIRT) [11], 1.3 million people dies in traffic accidents, while 90% of traffic accidents occurs in poor and middle developed countries where material damages reach 518 billion dollars.

In many systems, human factor can be crucial. It can be said that human factor, for sure, plays significant role in road traffic system. In the area of standards and standardization, it is consider that management of human factor contributes to the efficiency and quality of system functionality. Consequently, members of international organization for standardization, within already existing developed standards, formed new unique holistic approach – ISO 39001:2012 standard which requirements dictate implementation of Road Traffic Safety Management System. The aim of ISO 39001 standard is to increase road traffic safety, i.e. to reduce number of road traffic accidents and then also to reduce occurs of light and serious body injures as well as deaths in road traffic. ISO 39001:2012 standard is especially intended to organizations which scope is transportation of passengers and goods, organizations which are dealing with designing, construction and maintenance of road infrastructure as well as to organizations which participates in forming of law regulations in the area of road traffic safety. Standard is based on principles of QMS (quality management system) and process of his implementation is related to PDCA (Plan-Do-Check-Act) cycle. [06]

The aim of this research is to participate in developing of his application, considering that presence of application of ISO 39001:2012-standard is not large. Presence of his application can be evaluated by number of issued certificates. By certificate can be proved that organization operates on the way that fulfilled requirements of ISO 39001:2012 standard. According to the data from year 2012 in the world were issued approximately 14 ISO 39001 certificates, 6 in Japan, 2 in Great Britain and 1 in India, Oman, Turkey, Malaysia, Sweden and Greece. [07, 08, 09].

Nevertheless, organization does not have to be certificate. It can only operate according to the requirements of ISO 39001:2012-standard. So, it can be assumed that his presence in the world is probably larger, but in Europe is definitely low. Data from [07, 08, 09] confirms that. Certificate is for now optionally and represents verification of successfully implemented some of current updated standards, such as ISO

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9001, ISO 14001, OHSAS 18001 and etc. But, after implementation, organizations mostly decide to certificate implemented standard, where reasons are main benefits such as better placement of products or services on the market. Thus, representing the specifics of standard ISO 39001 of his implementation in this paper shall inform organizations and motivate them to implement it.

SHORT LITERATURE REVIEW

Motivation to present the specifics of standard ISO 39001:2012 is found in facts that power of using of this standard is proven (see literature [07, 08, 09]-list of achieved benefits in organizations with implemented ISO 39001 standard), while participating of his application is still low. Thus, the number of researches and published papers related to the topic ISO 39001-standard is relative low. However, within this small number of published papers, there is papers which are worthy for analyzing and which are closely related to the topic of RTS (Road Traffic Management System). Paper of authors *Carslake, J. et. All* [01] performed analyzing of launched safety activities in traffic by some of private companies in Australia and evaluation of their influence on overall business. Five case studies, i.e. five companies which are main business activity is transportation in traffic, have adjusted their processes and took measures based on requirements of ISO 39001:2012 standard. Result is improvement of their business related to the road traffic safety and proved economic savings. Paper [02] (*Bliss, T. et. All*) discuss about standard ISO 39001:2012, as a new tool for strengthening and building capacity of institutions for achievement of global targets set it in decade (2011-2020) , which is action plan for improvement of world level of road traffic safety. In paper *Crackel, L. et. all* [03] was announcement publishing of ISO 39001 standard as a new tool for safety system, which brings for organizations of any type easier demonstration of their commitment to fulfill long-term set it target – elimination of deaths and heavy body injuries in traffic. About Sweden experience related to the Road Traffic Management System, tell us paper [07] *Johansson-a, M.*, which indicates that system approach to safety in road traffic leads to profitability of companies. Conclusion was brought based on performed research in 141 Sweden traffic companies by Sweden Association for Traffic Companies. Topic-development of integrated road traffic safety system in Indonesia is in paper *Yahya, M. et. all* [04]. In this paper it was identified 5 pillars on which it can be builds safety in traffic: controlling, safer roads, safer vehicles, safer participants in traffic and adequately caring after occurring of traffic accidents. Paper tell us that approach which aims to be formed reliable and precise database about road traffic accidents, provides identification of specific roads, vehicles and participants in traffic which need to be oriented to perform building level of safety. Analyzing of human factor on safety approach is showing in paper of *Larsson, P. et. all* [05]. It was concluded that approach of safety system share vital elements with concept of human factor.

MAIN SPECIFICS OF THE STANDARD ISO 39001:2012-Road Traffic Management System

In comparison with other developed ISO standards, ISO 39001:2012 is also generic standard and it can be applied on every type of companies but the main benefits can be achieved in companies which have large vehicle fleets i.e. which main business activities are transportation of people and goods. It can be said that differences in comparison with other ISO standards are large, and that implementation of this standard is more practical, furthermore after implementation using of this standard is more practical. However, according the Annex SL which was developed by International Organization for standardization, this is standard is structured. It is very well know that Annex SL was developed to achieved high level structure, unique structure for all new released standards, such as ISO 9001:2015, ISO 14001:2015, as well as previous published standard ISO 27001:2013, and announced ISO 45001. The main reason for developing the Annex SL is easier integration of more standards in one organization or easier using of combine implemented standards in one organization. So, according to the above mentioned the main specific of standard ISO 39001:2012 that his requirements are based on requirements defined in ISO 9001:2015, and for the organizations who intend to implement it will have almost all elements in use also of ISO 9001:2015. Furthermore, other specifics are:

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- Requirements of standard ISO 39001:2012 are based on enhanced top management responsibilities, i.e. – improvement leadership;
- It is necessary to identify role of organizations in the road traffic system;
- Within planning organizations needs to follow a process that reviews current road traffic system performance, determines the risk and opportunities, select road traffic performance factors to work on, analyses what it can achieve over time and sets appropriate RTS objectives, RTS targets and plans to achieve them;
- Organization need to implement actions to address risk and opportunities by developing the methodology for evaluation the risk of occurring the road traffic accidents in which participated vehicles from vehicle fleet organization;
- Furthermore, organization needs to develop procedure for investigation the occurred road traffic accidents as well as procedure for emergency preparedness and response to road traffic accidents;
- The main specific is probably introducing the following and evaluation of Key Safety Indicators (KSI) or RTS performance factors, which includes:
 - Risk exposure factors;
 - Final safety outcome factors, e.g. the number of deaths and serious injuries;
 - Intermediate safety outcome factors;

Identifying context and RTS performance factors is a key element of this International Standard. Probably, this will be the main task and probably the hardest issue to be resolved for the organizations who intend to implement the standard ISO 39001:2012. However, below it is showed on example of instructions how to defined RTS performance factors relative to the context of organization. (Table 1)

Table 1: example of instructions how to defined RTS performance factors relative to the context of organization

Context of organization	Instructions to the define RTS performance factors
Transporting people and goods A multinational sales and marketing organization	Driving on company business represents the highest risk activity within many multinational companies which operate regional or global fleets. Sales, service and other drivers can spend 40 % to 60 % of their time driving on company business in company owned, leased, car allowance, rental or other vehicles. As such, companies have an obligation to ensure the health and safety of their employees and the communities in which they operate. Key RTS performance factors include: understanding their fleet safety risks, i.e. the risk of death and injury; appropriate entry and exit of vehicles and drivers into the road network; policies around speed, alcohol, seat belt/helmet use, driver fatigue and distraction, vehicle selection/maintenance; journey planning; contractor/distributor RTS management; and corporate social responsibility through involvement in road safety advocacy and support of community road safety initiatives.

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