

TRAFFIC SAFETY FACTORS AND OBSERVATION OF THE INFLUENCE OF SOCIAL NETWORKS BASED ON THE EXAMPLE OF THE REPUBLIC OF SERBIA

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Abstract: *Traffic safety factors can best be analysed through the existence of a relationship represented by the human-vehicle-road-environment relationship. The existence of a matrix that was man-vehicle-environment, but for practical reasons there was a need to single out the road as a separate factor and not as a segment of the environment factor can be improved by the influence of social networks on the development of safe and secure traffic that is increasingly coming to expressed in countries that strive to achieve faster economic development. The safety of traffic on roads and other road networks on land, water, and air largely depends on social control, which essentially relies on the existence of digitization of traffic corridors, the existence of the development of social networks, developed software solutions, the introduction of innovative approaches to control, payment of fines, and the formation of income the state on that basis and others.*

Keywords: *Digitization, traffic, security, safety, transition economy, application.*

1. INTRODUCTION

The modern socio-economic system requires respect for numerous factors, especially those that affect traffic safety in a country and the business decision-making process both in companies and within the economy that is considered to be developing [1-7]. We can best analyse the development of such conditions through the existence of a relationship represented by the relationship man-vehicle-road-environment, that is, means of transport-man-environment-business result of those activities, especially from the management level of the economy [8-12]. The existence of a specific matrix that would refer to the achievement of

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optimization of total transport is an essential managerial issue related to the processes of improving transport as an activity within an economy [13-16]. The safety of traffic on roads and other road networks on land, water, and air largely depends on social control, which essentially relies on the existence of digitization of traffic corridors, the existence of the development of social networks, developed software solutions, the introduction of innovative approaches to control, payment of fines, and the formation of income states on that basis, etc., which must be respected in the processes of real management of the economy [17-25], which is of great importance in conditions of non-standard business (war, earthquake, unstable political conditions for the economy, etc.).

2. TRAFFIC SAFETY ON THE ROAD NETWORK ALONG THE ESTABLISHED ROAD CORRIDORS IS THE MAIN IMPACT

Traffic safety on the road network along the formed road corridors can have a basic impact on the economy, and the most general impact can be presented in different ways. The author presented a possible representation of such a situation through the representation in Figure 1.

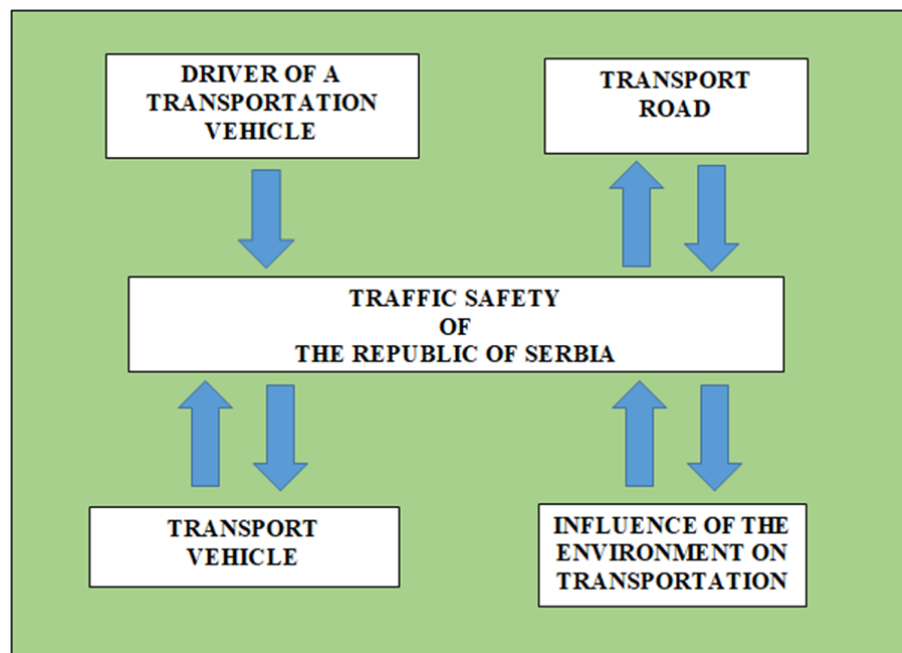


Fig. 1: Presentation of traffic safety of Republic of Serbia. Source: Author, 2024.

There are relatively rare traffic accidents that occurred under the influence of only one factor. For this analysis, it is possible to represent the percentage of influential factors such as, for example, the following:

- in 65-75% of traffic accidents there is an influence of the human factor,
- in 15-25% of traffic accidents, environmental factors are present and
- in 5-10% of traffic accidents, the vehicle is an influential factor (a similar percentage applies to the contribution of the road). Only the framework was mentioned and their relationship depends from country to country, on the development of the economy, the impact on the economy, the expectations and the strategy of the development of the entire economy and the management of the economy and other factors.

3. OBSERVATION OF MAN AS THE MOST SIGNIFICANT FACTOR OF INFLUENCE ON TRAFFIC SAFETY IN ONE ECONOMY

Man, as the dominant factor in traffic safety, represents the most important and complex subsystem of traffic safety. By looking at a larger sample of traffic accidents, one can see the predominance of omissions of a subjective nature. Therefore, in order to define adequate measures, it is necessary to look at the real causes and mechanisms of human behavior in traffic.

Given the fact that man represents a very complex complex of inheritance, physical and mental characteristics, as well as the action of social processes, it is very difficult to define his physical, psychological, external and internal factors, which are reflected in traffic safety. Engaging in traffic safety research, some authors describe in more and more detail the characteristics of man as a spiritual being and the main actor in traffic safety. In addition, men and women differ in many characteristics, which also affects the difference in their quantitative participation in traffic accidents.

According to him, women are less problematic in traffic, on average they understand dangers better and are less inclined to take risks. They commit fewer traffic violations, especially when it comes to speeding, running a red light and aggressive driving, and they drive a vehicle under the influence of alcohol to a much lesser extent. He also adds that women are less inclined to seek thrills in traffic and risky situations:

1. Personality structure, as a very important segment of traffic safety, but also characteristics: temperament,

2. Character and character traits,
3. Psychomotor skills,
4. Social intelligence,
5. Prejudices,
6. Interests,
7. Ability to adapt,
8. Self-awareness,
9. Habits,
10. Ideals,
11. Emotions and other personal characteristics
12. Emotional stability,
13. Coolness, responsibility,
14. Appropriate knowledge,
15. Habits and developed motor skills of a person.

Appreciation of the highlighted need to be fully used when assessing the risk of traffic as an economic activity, as well as with the introduction of innovative approaches, i.e. the application of digitization as a comprehensive process, the use of social networks as an influence on the development of traffic safety, the development of new software solutions that improve overall traffic safety in one country.

4. OTHER FACTORS AFFECTING TRAFFIC SAFETY

Other factors affecting traffic safety can be observed through temperament analysis, which represents the way of expressing the energy that a person has, and the difference in temperament is observed in the way the vehicle is driven, so that one part of the driver drives the vehicle aggressively, unrestrained, intolerant, impulsive, nervous and fast, while other drivers drive more coolly, more tolerantly, thoughtfully and slowly. Due to differences in temperament, people experience certain traffic situations and form their behavior differently.

Temperament can be defined as a set of specific traits that determine a person's emotional experiences and reactions to events, events, objects and people. He also explains it as a way of emotional reaction to phenomena, processes, events, behaviors, etc.

Temperament is not manifested exclusively through emotional reactions and experiences, but also within the overall activity of a person, even in the one where a person is a participant in traffic through specific situations. It affects quick response with a high degree of tolerance to difficult situations that are common in traffic, conditioned by the dynamics of traffic, which precisely because of this requires identification, types of driver's temperament.

A possible classification of temperament is into:

1. Sanguine,
2. Choleric,
3. Phlegmatic and
4. Melancholic.

These characteristics of drivers through their traffic behavior and impact on traffic safety: Drivers with a sanguine temperament are characterized by easy mood swings and rapid transition from negative to positive mood; Drivers with a choleric temperament are characterized by frequent, sudden and strong reactions. These drivers get excited easily, react too quickly and unevenly, are annoyed by little things and have a hard time adapting to the environment; Phlegmatic drivers are characterized by slow reactions and weak feelings. These drivers are usually calm, composed and slow to react. It was brought out because of the great impact on traffic safety. Such appreciation is possible only if overall safety, overall innovations in traffic safety, digitization, software support for traffic, etc. are monitored.

5. CONCLUSION

The paper presents a number of factors influencing traffic safety that can be observed through the analysis of e.g. temperament, which is a way of expressing the energy that a person has, and the difference in temperament is observed in the way of driving a vehicle, so that one part of the driver drives the vehicle aggressively, unbridled, intolerant, impulsive, nervous and fast, while other drivers drive more cold-blooded, tolerant, deliberate and slower as everything falls into individual impacts on traffic safety which is the first conclusion. Another conclusion would be that the use of modern roads in the organization of traffic requires the application of essential factors such as: drivers, vehicles, the environment and the transport road, which should be used, maintained, and built with particular care in an economy. The third conclusion is that the need for an innovative approach to organizing

traffic as an economic activity is growing, such as: application of new software solutions, digitization, use of social networks, etc.

REFERENCES

- [1] Bakmaz, O., Dragosavac, M., Jestrović, V., Radaković, M., Davidov, T., Bjelica, B, Brakus, A., Popović, D., (2023). Management of plant production (narcissus l.) Through the application of non-standard growing methods in order to increase the financial value of production, *Economics of Agriculture*, Year 70, No. 2.
- [2] Popović, S., Laban, B., Vukasović, D., Ivić, M., Popović, V. (2018). Internal and external audit as a factor in improving the management of the Agricultural enterprise, *Poljoprivredna tehnika*, 4: 8–12.
- [3] Popović, S. (2015). Implementacija heterogenih rizika u radu interne revizije, *Revizor* 69: 7-19.
- [4] Bjelica, B., Bakmaz, O., Mijić, R., Popović, S. & Popović, V. (2017). The implementation of heterogeneous risk to the company's operations and transition countries respecting the behavior of agricultural enterprises in the republic of Serbia. *Annals of the „Constantin Brâncuși” University of Târgu Jiu, Economy Series*, 3/2017, 207-213, ISSN 2344 – 3685/ISSN-L 1844 –7007.
- [5] Radović, M., Vitomir, J., Laban, B., Jovin, S., Nastić, S., Popović, V. & Popović S. (2019). Management of joint stock companies and farms by using fair value of agricultural equipment in financial statements on the example of IMT 533 Tractor, *Economics of Agriculture*, 1: 35-50.
- [6] Popović, S. (2014). *Socio-ekonomski faktori ograničenja razvoja agrara*, monografija, Fimek, Novi Sad.
- [7] Bakmaz, O., Anđelić, S., Dragosavac, M., Grublješić, Ž., Nastić S., Popović, D., Tubić M. & Popović S. (2024). The importance of determining the efficiency of business of agricultural farms in relation to the use of credits in agriculture, the example of the Republic of Serbia, *Agricultural Engineering*, No. 1, 10-16.
- [8] Popović, S., Tošković, J., Majstorović, A., Brkanlić, S. & Katić, A. (2015). The importance of continuous audit of financial statements of the company of countries joining the EU, *Annals of the „Constantin Brâncuși” University of Târgu Jiu, Economy Series*, Special Issue, 241-246.

- [9] Radović, M., Vitomir, J. & Popović, S. (2021). Impact of internal control in enterprises founded by local self-government units: the case of Republic of Serbia, *Inzinerine Ekonomika-Engineering Economics*, 32(1): 82–90.
- [10] Ivaniš., M. & Popović., S. (2013). Altmanov Z-Score model analize, *Ekonomija-teorija i praksa* br.2, Fakultet za ekonomiju i inženjerski menadžment, Univerzitet Privredna akademija u Novom Sadu, 47-62.
- [11] Arnautović, I., Davidov, T., Nastić, S. & Popović, S. (2022). Značaj donošenja racionalne poslovne odluke top menadžmenta u poljoprivrednim preduzećima u Republici Srbiji, *Poljoprivredna tehnika*, 1-8.
- [12] Majstorović, A. & Popović, S. (2015). Revizija poslovanja poljoprivrednog preduzeća, *Računovodstvo*, 1: 77-85.
- [13] Tamas-Miškin, S., Vitomir, J., Dragosavac, M., Medan, N., Radaković, M., Vitomir, G., Davidov, T. & Popović, S. (2022). The significance of archiving documentation and assessment quality of archiving financial documentation given by top managers, *Economics of Agriculture*, Year 69, No. 4, 2022, (pp. 949-1252),
- [14] Popović, S., Vitomir, J., Tomaš-Miskin, S., Davidov, T., Nastić., S., Popović, V., Popović, D., Vitomir, G. (2021). The importance of a realistically determined amount of tax on property rights relating to the ownership of agricultural land in the Republic of Serbia adopted by tax authorities of local selfgovernment units, *Ekonomika poljoprivrede, Economics of agriculture*, Vol.LXVIII, 4: 1029-1042.
- [15] Popović, D., Vitomir, J., Tomaš-Miskin, S., Davidov, T., Popović, S., Jovanović, M., Aćimić-Remiković, M., Jovanović, S. (2021). Implementation of internal control with reference to the application of it in companies operating on the principles of the green economy. *Agriculture & Forestry*, Vol. 67 Issue 2: 261-269.
- [16] Bakmaz, O., Dragosavac, M., Brakus, A., Radaković, M., Arnautović, I., Samardžić, V., Krstajić, G. & Popović, S. (2024). Financial security and invoicing in management of public enterprises whose founders are local self-government units, example Republic of Serbia, *Lex localis-Journal of Local Self-Government*, 22:2, 198-218.
- [17] Popović, S. (2015). Implementacija heterogenih rizika u radu interne revizije, *Revizor* 69: 7-19.
- [18] Popović, Laban, B., Popović, V., Jovin, S., Grubljesić, Ž., Filipović, V. (2018). Management by respecting the provision of conditions for the commencement of

procurement and monitoring of implementation in agricultural enterprises, *Poljoprivredna tehnika*, 2: 30–35.

[19] Bakmaz, O., Bjelica, B. & Vitomir, J. (2023). Application of software solutions in companies that strive to achieve increased financial stability in their regular business, *Temel-IJ*, 7:1, 13 – 20.

[20] Popović, S., Anđelić, S., Dragosavac, M., Bakmaz, O., Nastić, S., Popović, D., Tubić, M. & Grublješić, Ž. (2024). Ocena vlasnika poljoprivrednih gazdinstava po pitanju primene softvera u poslovanju, sa ciljem unapređenja upravljanja, *Agricultural Engineering*, No. 2, 1-1.

[21] Bakmaz, O., Đuranović-Miličić, J., Dugonjić, D, Brakus, A., Gligović, D., Grublješić, Ž. & Popović, S. (2024). Management of non-standard agricultural equipment based on assessments of farm owners and management of healthcare organizations based on common use for patient treatment needs, *poljoprivredna tehnika*, issn 0544-5587.

[22] Popović, S., Ranko, M., Grublješić, Ž. (2014). Interna kontrola i interna revizija u funkciji menadžmenta, *Škola biznisa*, 1/2014, 95-107.

[23] Popović, S.(2014). Valuation of Computer Equipment and Telephone Equipment in Order for Reports to Manage Companies, *Communications in dependability and QM*, IC 17;2, 47-52.

[24] Popović, S., Grublješić, Ž., Mijić, R. (2014). Procena vrednosti opreme u upotrebi u preduzeću sa pretežnom poljoprivrednom delatnošću, *Agroekonomika*, 43:61-62, 80-89.

[25] Popović, S., Tošković, J., Grublješić, Ž. (2014). Environmental-Economic Model of Developing Composters in Parks, Protected Areas and City Limits in the Republic of Serbia, *ProEnvironment* 7: 213-217.