COMPARISON OF VEHICLE REGISTRATION SERVICES IN THE BALTIC STATES

Ilona Romanuka¹, Anita Puzule²

¹Mg.sc.ing., Rezekne Academy of Technologies, Rezekne, Latvia, e-mail: <u>ilona.romanuka@inbox.lv</u>

²Mg.oec., researcher, lecturer, Rezekne Academy of Technologies, Rezekne, Latvia, e-mail: <u>Anita.Puzule@rta.lv</u>

Abstract. The problem of the study is that Latvian citizens often express dissatisfaction with vehicle registration prices, speculating that these services are available at lower prices in the neighbouring countries – Lithuania and Estonia.

The aim of the research: to compare and analyse vehicle registration services in the Baltic States in order to provide suggestions for the improvement of the services. The research uses general scientific research methods: the monographic and descriptive methods, the document analysis method, the comparative analysis method, the horizontal analysis, the ranking method, the logical construction method and the graphical method.

Based on the cases analysed, the authors conclude that vehicle registration costs are the lowest in Lithuania, yet these costs may depend on factors such as vehicle age and technical parameters, so not always the cheapest price is reported in Lithuania. Vehicle registration costs in Estonia, regardless of any parameters, for all light vehicles are the same at 192,00 euro.

The authors compared and analysed vehicle registration services in the Baltic States, evaluated the price of services and the elements included in them. The study shows that when receiving vehicle registration services in the Baltic States, the conditions and price for receiving them differ. It is mainly influenced by the tax policies and pricing strategies of each country.

Keywords: service price, vehicles, vehicle registration services, vehicle taxes.

JEL code: *G18, H27, R48.*

Received: 8 June 2021 **Revised:** 9 September 2021 **Accepted:** 29 September 2021 **Published:** 10 December 2021

Introduction

The role of the tax consulting industry in promoting tax evasion products is increasingly being examined in the Western world. Various members of society, such as governments and non-governmental organizations, academics and the media, have expressed their dissatisfaction with the negative impact of tax evasion on the state budget (Apostol, Pop, 2019). In many countries, tax reforms have been followed by rapid changes in the purchase of new vehicles, with more diesel and fuel-efficient vehicles being chosen (Mabit, 2014). Electronic vehicle registration allows dealers to immediately register vehicles sold with their national motor vehicle department on a secure, high-speed network. It is convenient for vehicle

https://doi.org/10.17770/jresd2021vol1.13.6664

buyers to leave the car shop with a fully registered vehicle with permanent number plates and stickers (Kiesel, 2005). About one third of transport costs are fuel, another third is depreciation, and the rest are mainly fixed costs (insurance, taxes, repairs and maintenance), but the distribution of costs is different, with most motorists paying less than average for private vehicles, while few pay more and apparently some pay much more (Eisenmann, Kuhnimhof, 2018). One of the main problems in the vehicle registration industry is that Latvian citizens are often dissatisfied with the high prices of vehicle registration, suggesting that the costs of vehicle registration in the neighbouring countries – Lithuania and Estonia – are lower.

The aim of the research: to compare and analyse vehicle registration services in the Baltic States in order to provide suggestions for improvements in the services.

The tasks of the research are:

- 1) to describe vehicle registration services in the Baltic States;
- 2) to compare vehicle registration services and costs in the Baltic States;
- 3)to make conclusions and suggestions for improvements in vehicle registration services.

The novelty of the research – the authors compared and analysed vehicle registration services in the Baltic States, the prices of the services and the elements included in them, as well as did a basic analysis for improvements in vehicle registration services.

Research methods: using the monographic and descriptive methods and the document analysis method, the laws of the Baltic States, from which the regulations on vehicle registration are derived, were analysed. The graphical method was used to illustrate the development of vehicle registration and the differences in the prices of vehicle registration services in the Baltic States. The comparative method was used to compare vehicle registration costs in the Baltic States. The horizontal analysis was used to compare the prices of vehicle registration services in Latvia with the those in Lithuania and Estonia. The ranking method was used to clearly arrange the registration services according to their prices. The logical construction method was used to draw conclusions.

Research period: 2019-2020.

Results and discussion

Private vehicle travel entails costs to society. However, in a world designed around the automobile, adults who lack access to a vehicle for economic reasons may experience a significant handicap due to constrained mobility and accessibility. Moreover, the activities most likely to be foregone are generally associated with high subjective well-being, suggesting that

constrained mobility comes with significant emotional costs. Overall, the findings suggest that the lack of a private vehicle is deleterious for quality of life, raising troubling questions about inequity possibly arising when people are denied access to vehicles for economic reasons (Morris, Blumenberg, Guerra, 2020).

Today, there are also global problems with transport, as F. Alrawi mentioned in his publication: the growth of vehicles and their proper management are topical. Proper management is based on modern transport and technical development, a lack of efficient and convenient public transportation services and dependence on private cars. This leads to increased traffic density, and changes in the speed of traffic flow which causes an increase in energy consumption and gas emissions such as carbon monoxide, lead, nitrogen dioxide, soot, and particulate pollutants (Alrawi, 2017).

Studying the situation in the transport sector in Latvia, the authors conclude that there is still an increase in the number of vehicles. The increase in the number of vehicles is an important reason for in-depth research in this area. The field of vehicle registration services is the one under study, as it is essential for ensuring law and order, helping to prevent criminal activity and enforcing compliance, thus helping to maintain public order and improve safety for human health and life.

Vehicle registration services are available in all Baltic countries. In Latvia, these services are provided by the SJSC "Road Traffic Safety Directorate" (CSDD) (Road Traffic Law, 1997), which in the 29 years of its operation has become a stable, responsible and well-respected company providing quality services. In Lithuania, vehicle registration services are provided by the state company Regitra, which has been registering vehicles in Lithuania for 20 years. The company has an extensive network of customer service centres with 39 branches where services are available, but the emphasis is also on the use of e-services (Renkuosilietuva, 2019). In Estonia, vehicle registration services are provided by the state-owned Estonian Road Administration, which also manages other nationally important areas, such as road planning and maintenance and transport safety and mobility. In Estonia, the e-service system is also being promoted, where using e-services provides them with a lower price than in person (Maanteeamet, 2020).

Vehicle registration certificates are signed by the head of regional offices and regional transport officers. This is mainly due to the lack of availability of printing and laminating equipment in the regions, as well as the serious opinion on illegal duplication of licenses, which often serve as identity cards. Electronic vehicle registration allows dealers to immediately register vehicles sold with their national motor vehicle department on a secure, high-speed network. It is convenient for vehicle buyers to leave the

car shop with a fully registered vehicle with permanent number plates and stickers (Miyata, 2011).

The accuracy of motor vehicle registration data thus becomes an important contribution to environmental impact assessment if we are to identify the effectiveness of a specific environmental policy in changing the composition of the car fleet in a way that reduces emissions (Apelbaum, Li, Hensher, 2011).

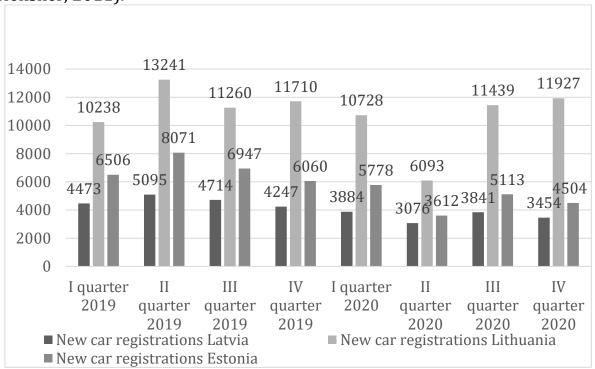


Figure 1 Number of new car registrations in 2019 and 2020 (compiled by the authors, source: ACEA, 2021)

Analysing the new car registration services in the Baltic States in 2019 and 2020 up to and including the second quarter, the authors conclude that the largest number of new car registrations was reported in Lithuania, influenced by several factors, one of them is a larger population than the other Baltic States have and the location closer to European countries – Germany, the Netherlands, France, Belgium and others –, which the most imported and registered cars come from. Estonia is in second place in terms of new car registrations. This number is 58.44 lower than in Lithuania, but is 31.06% higher than in Latvia (Figure 1).

Latvian residents who live closer to the Estonian border also tend to choose to register their vehicles in Estonia because in some cases, it is cheaper in terms of costs, because there are no additional taxes such as operating tax and natural resources tax.

Lithuania is the leader in terms of population in the Baltic States. Lithuania is also in first place in terms of the number of newly registered cars, however, if this number is measured per 1000 inhabitants, then Lithuania is in second place with 16.5% of cars per 1000 inhabitants (Table 1).

Table 1 Numbers of new registered cars and in absolute and relative terms in the Baltic States in 2019 (compiled by the authors, source: ACEA, 2021)

Indicators	Latvia	Lithuania	Estonia
Population	1930 000	2810000	1320000
Number of new registered cars	18529	46449	27584
Number of new registered cars	9.6	16.5	20.9
per 1000 inhabitants			

In Latvia, 9.6 cars per 1,000 inhabitants were registered in 2019, which was the lowest indicator among all the Baltic States. The authors conclude that the number of new registered cars does not reveal in which country more new cars are registered, but it is needed to determine the number of new registered cars per 1000 inhabitants, as it gives an idea of the use of this service in each country. Lithuania and Estonia outperform Latvia in this respect, which has the lowest figure.

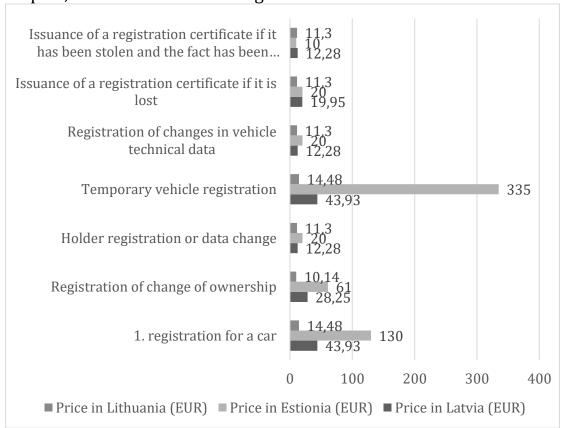


Figure 2 Prices of vehicle registration services in the Baltic States in 2020 (compiled by the authors, sources: Maanteeamet, 2020; Regitra, 2020; CSDD, 2020)

Figure 2 shows that the highest price for the 1st registration service is in Estonia - 130 euros, respectively in Latvia the price of this service is 3 times lower, in Lithuania even 9 times lower 14 and 48 euros, respectively. In Estonia, this price is the highest, because in Estonia there is no need to pay additional transport taxes as in Latvia and Lithuania. The highest price for registration of change of ownership is also 61 euros in Estonia, in Latvia the price of this service is 2 times lower than in Estonia, and in Lithuania the price of this service is 6 times lower, respectively 10.14 euros. Even when changing the owners of a vehicle, no taxes have to be paid in Estonia, but in Latvia and Lithuania the payment of transport taxes is controlled or paid for the current period, which in Latvia is the operating tax and in Lithuania the registration tax. The registration of the holder or the change of the data is also at the highest price in Estonia - 20 euros, but in Latvia and Lithuania the price of this service is almost 2 times lower. Latvia is the only one of the Baltic States where the registration of the holder or the change of the data is also controlled or the vehicle operation tax has been paid if the tax has not been paid; it is collected for the current period. The highest price considered in this price comparison is on the temporary vehicle registration service. The highest price of this service is in Estonia - 335 euros, in Latvia the price of this service is 7.6 times lower and in Lithuania it is the 3 times lower price compared with Latvia. The registration of changes in vehicle technical data is also at the highest price in Estonia - 20 euros, while in Lithuania and Latvia, the price of this service is almost 2 times lower. For the issuance of a registration certificate, if it is lost, the most similar prices on the service are in Latvia and Estonia, the prices of this service differ by only 0.05 cents, whereas in Lithuania the price of this service is 2 times lower. The issuance of a registration certificate if it has been stolen and the fact has been reported to the police – the prices are similar in all the Baltic States. The lowest price on this service this time is in Estonia - 10 euros, in Lithuania the price of this service is 1.30 euros higher than in Estonia, and in Latvia this service has the highest price, which is 2.28 euros higher than in Estonia.

In this case, Estonia is also the only one of the Baltic States where no tax is applied, in Latvia the tax set has to be paid, but in Lithuania no tax is paid if the vehicle is registered for up to 1 month.

However, all the registration services analysed above only reflect the price of the registration service. In fact, these costs are higher when registering a car, as there is also a charge for national taxes or fees when registering a vehicle. In order to successfully register a passenger car for the first time in Latvia, it is necessary to pay the vehicle operation tax and the natural resources tax. If the vehicle is registered in the ownership of a legal person, then the payment is also applied to the company car tax.

Authors such as C. Eisenmann, T. Kuhnimhof (2018) and E.A. Morris et al. (2020) mainly focus on current monthly costs, or annual costs of insurance, repairs, taxes, technical inspections, rather than on one-off service charges.

In order to make the existing real costs of vehicle registration services in the Baltic States more visible, in Table 2 the authors compare 4 different vehicles according to their registration costs in each of the countries. As the first cost is calculated for a 2010 Volvo xc70, the second car is a 2005 Audi A3, the third is a new electric car VW Golf produced in 2019 and the fourth is a BMW produced in 2018. The table compares the total cost of registering a vehicle in each country, including taxes, if any (Table 2).

Table 2 Comparison of vehicle registration costs in the Baltic States in 2020, Euros (compiled by the authors, source: CSDD, 2020)

		Registration	Registration	Registration
Vehicle	Technical data	costs in	costs in	costs in
		Latvia	Lithuania	Estonia
Volvo XC70	Engine max power – 136 kw	370.23	289.68	192
produced	Engine volume – 2400 cm ³			
in 2010	CO ² per 1km – 219 g			
Audi A3	Engine max power – 85 kw	207.23	109.68	192
produced	Engine volume – 1598 cm ³			
in 2005	Gross weight – 1970 kg			
	CO ² per 1 km – 158 g			
VW Golf	Engine max power 100 kw	105.03	19.68	192
produced	Electricity consumption			
in 2019	(W /km) - 159			
BMW 320D	Engine max power – 140 kw	190.23	19.68	192
produced	Engine volume – 1995 cm ³			
in 2018	CO ² per 1km – 118 g			

The authors conclude that for the first vehicle analysed, 2010 Volvo XC 70, the most expensive registration fee is 370.23 euros when registering in Latvia, in Lithuania the registration fee with taxes is 80.55 euros lower and in Estonia the registration fee is 178.23 euros lower than in Latvia. For the second vehicle analysed, 2005 Audi A3, the most expensive registration costs are also in Latvia at 207.23 euros, in Lithuania the registration costs for this vehicle are 97.55 euros lower, and in Estonia the registration costs for this vehicle are 15.23 euros lower than in Latvia. The third vehicle analysed is the 2019 electric car VW Golf. In Latvia, the registration cost for this vehicle is 105.03 euros, but in Lithuania the registration cost for this vehicle is only 19.68 euros. The most expensive registration costs for this electric car are in Estonia, where they are 86.77 euros higher than in Latvia. The fourth car analysed is the 2018 BMW 320D. The registration costs for a similar vehicle

are lower in Latvia and Estonia, in Latvia only by 1.77 euros lower, but the lowest costs are in Lithuania at only 19.68 euros.

In Latvia, all vehicles are taxed by the operating tax, except for electric cars. There are no exceptions to the natural resources tax in these cases, and all such vehicles also pay the natural resources tax. In Lithuania, the registration tax is paid by all vehicles whose CO2 emissions per 1 km exceed 130 g. As VW golf and BMW 320D cars do not produce such emissions or they are less than 130g per 1km, no registration fee has to be paid. In Estonia, there are no national vehicle taxes and there are no derogations or exceptions to the registration tax, which is paid in the same amount for all vehicles.

Despite the analysis of vehicle registration costs performed in Table 2, the actual costs may change depending on the price of a compulsory motor third party liability insurance (MTPL) policy for a specific vehicle. Unfortunately, it is not possible to make an exact calculation of what the policy prices would be in each country. In Latvia, data that are not publicly available include the vehicle registration certificate number. This number is available on the vehicle registration certificate and is only available to the vehicle owner. In Estonia, vehicle registration plate data are required. The only country where it is possible to provisionally determine the MTPL policy price is Lithuania, because in this country the MTPL policy must be drawn up before the vehicle is registered in the country and the policy price is calculated based on vehicle technical data, the vehicle owner's data and the vehicle owner's place of residence.

Conclusions and suggestions

- 1. Vehicle registration costs are a set of payments that differs in each of the Baltic States, but the recipients of the service, each have the opportunity to assess whether the costs are reasonable.
- 2. Vehicle registration costs are one-off and not as significant in the long run as fuel or repair costs.
- 3. In order to correctly determine in which country the vehicle registration costs are lower, it is necessary to perform an analysis of the registration costs of each particular vehicle, because each vehicle has different costs.
- 4. As a general trend, the authors have determined that the registration costs for newer vehicles are lower; this is due to the fact that more and more environmentally friendly vehicles are produced, for which, for example, the tax costs for registration are much lower than for older vehicles.
- 5. A significant part of the cost of registering a vehicle is also the cost of MTPL, which also depends on many factors, but mostly on the Bonus-

malus class of the driver. In this case, drivers with more experience and those who have not been involved in accidents are the winners.

Proposals have been developed to improve the availability of current registration services to customers, which would save both money for the customers and time spent on vehicle registration. Main suggestions:

- 1. The Road Traffic Safety Directorate, emphasising the importance of eservices in the provision of registration services, needs to adopt the Estonian experience by setting a lower price for the services received in the e-environment than for the services received in person. This will save customers time and money.
- 2. The Ministry of Finance of the Republic of Latvia should exclude vehicle maintenance tax payments for vehicles, but instead introduce a registration tax payment, which stipulates that the tax must be paid for vehicles with CO2 per 130 km exceeding 130 g, taking over the idea from Lithuania, thus encouraging people to switch to more environmentally friendly vehicles.
- 3. Due to the current restrictions in the country, the Road Traffic Safety Directorate should develop the possibility for the 1st registration service to receive it remotely, which would allow customers to save time and avoid contact with other people during the pandemic.
- 4. The Saeima of the Republic of Latvia needs to make amendments to the Insurance Law so that it would be possible to identify the potential amount of MTPL insurance for a vehicle before the vehicle is registered in the country.

References

- 1. ACEA (2021). *ACEA statistics press release.* Retrieved from https://www.acea.be/news/newsletter-statistics-pc
- 2. Alrawi, F. (2017). The importance of intelligent transport systems in the preservation of the environment and reduction of harmful gases. *Transportation Research Procedia*, 24, 197-203. https://doi.org/10.1016/j.trpro.2017.05.108
- 3. Apelbaum, J., Li, Z., Hensher, D.A. (2011). A correction framework for improving the robustness of motor vehicle registration data: An Australian application. *Transportation Research Part D: Transport and Environment,* 16 (7), 562-570. https://doi.org/10.1016/j.trd.2011.06.004
- 4. Apostol, O., Pop, A. (2019). Paying taxes is losing money': A qualitative study on institutional logics in the tax consultancy field in Romania. *Critical Perspectives on Accounting*, 58, 1-23. https://doi.org/10.1016/j.cpa.2018.05.001
- 5. CSDD (2020). *Rokasgrāmatas par vidējo degvielas patēriņu un CO2 izplūdi*. Retrieved from: https://www.csdd.lv/videjais-degvielas-paterins/rokasgramatas-par-videjo-degvielas-paterinu-un-co2-izpludi
- 6. CSDD (2020). *Transportlīdzekļu reģistrācijas nosacījumi.* Retrieved from: https://www.csdd.lv/vispareji-transportlidzeklu-registracijas-nosacijumi/vispareja-informacija

- 7. Eisenmann, C., Kuhnimhof, T. (2018). Some pay much but many don't: Vehicle TCO imputation in travel surveys. *Transportation Research Procedia*, 32, 421–435. https://doi.org/10.1016/j.trpro.2018.10.056
- 8. Kiesel, R. (2005). Computerized vehicle registration expands. *Automotive News*, 79(6158), 30-34.
- 9. Maanteeamet (2020). *Soiduki registreerimine*. Retrieved from https://www.mnt.ee/et/soiduk/registreerimine/soiduki-registreerimine
- 10. Maanteeamet (2020). *Tegevusvaldkonnad ja struktuur*. Retrieved from https://www.mnt.ee/et/ametist/tegevusvaldkonnad-ja-struktuur
- 11. Mabit, S.L. (2014). Vehicle type choice under the influence of a tax reform and rising fuel prices. *Transportation Research Part A: Policy and Practice*, 64, 32-42. https://doi.org/10.1016/j.tra.2014.03.004
- 12. Miyata, M. (2011). Measuring impacts of e-government support in least developed countries: a case study of the vehicle registration service in Bhutan. *Information Technology for Development.* 17(2), 133-152. https://doi.org/10.1080/02681102.2010.537251
- 13. Morris, E.A., Blumenberg, E., Guerra, E. (2020). Does lacking a car put the brakes on activity participation? Private vehicle access and access to opportunities among low-income adults, *Transportation Research Part A: Policy and Practice,* 136, 375-397. https://doi.org/10.1016/j.tra.2020.03.021 \ Regitra (2020). *Automobiliu registracijos mokestis*. Retrieved from https://www.regitra.lt/lt/paslaugos/transporto-priemones/automobiliu-registracijos-mokestis
- 14. Renkuosilietuva (25.11.2019). *Automobilio registravimas*. Retrieved from https://www.renkuosilietuva.lt/lt/automobilio-registravimas/
- 15. *Road Traffic Law* (01.10.1997). Law of the Republic of Latvia. Retrieved from https://likumi.lv/ta/en/en/id/45467