

The Indirect Administrative Burden of Road Tax Proposal: Survey and Eye-tracking Experiment in the Czech Republic

[Vyvolané administrativní břemeno navržené silniční daně:
dotazník a eye-trackingový experiment v České republice]

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Abstract: This paper presents the results of an eye-tracking experiment to uncover the indirect administrative burden related to a general road tax. The aim of the research was to use eye-tracking technology and a supplementary questionnaire survey to identify the time taken to complete the model road tax return form used in the Czech Republic. Simultaneously, the aim was to test the possibility of using neuroscience technology for research in the field of accounting research. In the experiment, we focused on the following factors: the effect of a number of vehicles; the effect of gender; the context of educational attainment; previous experience of completing the tax return form; car ownership, and their effect on the dependent variable - total time to complete the form. According to our results, filling in a higher number of vehicles brings time savings of scale for the participants. For this reason, a regressive impact of the administrative burden generated can be assumed, with a more significant impact on owners of a lower number of vehicles.

Keywords: Czech Republic, eye-tracking, road tax, time to comply, transport sector.

JEL classification: H23, H25, M39

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Introduction

The transport sector is an essential part of economic systems. But in addition to the positive effects, it generates a social burden from negative externalities. The aim of institutional, professional and academic investigation is to find a compromise solution and the application of an appropriate fiscal instrument, take into account the need to reduce the external burden and optimise the use of road vehicles.

Taxation of ownership and operation of road vehicles is applied by 21 EU member states, including the Czech Republic. The 15 countries take CO₂ emissions into account. The taxation decreases with vehicle age in 3 of the member states and increases with age only in the Czech Republic and Slovakia (Andrlík et al. 2022).

The general principle of the road tax in the Czech Republic is to tax the use of roads in the Czech Republic by road vehicles. However, under this basic thesis, only particular categories of road vehicles are restricted within the scope of the tax. The legal norm regulating the road tax is Act No. 16/1993 Coll., on Road Tax, as amended by 25 amendments (hereinafter referred to as RTA), by which the legislator tried to solve the pressing problem of the need to raise funds for the maintenance and development of road infrastructure in the Czech Republic.

However, it is absolutely clear that the fiscal revenue of CZK 5 429 mil. in 2021 is insufficient to cover at least infrastructure maintenance costs. At the same time, the amendment of the RTA by Act No. 142/2022 means a further reduction in the volume of road tax collection. The possible collection reserve of the road tax can therefore be clearly seen already within the definition of the subject of the tax. The subject of the tax according to Section 2 of the ITA are taxable vehicles, which are road vehicles of category N2 and N3 and their trailers of category O3 or O4, if they are registered in the Czech Republic. Prior to the entry into force of Amendment No. 142/2022, all categories of road vehicles were subject to road tax if they were used for or in direct connection with business or other self-employment. The exception was trucks with a maximum permissible weight of over 3.5t, which were subject to road tax regardless of the purpose of their use. It is precisely in the significant limitation of the subject matter of the tax that the revenue collection reserve can be seen. In particular, this is the category of passenger vehicles that are used for business activities, but also those in private ownership. The introduction of a general taxation of all road vehicles would lead to an increase in the revenues of the public budget, i.e., the State Fund for Transport Infrastructure, which is the recipient of the gross proceeds of this tax according to Section 5 of Act No. 243/2000 Coll., on the budgetary determination of taxes, as amended.

The profitability of any tax, including road tax, cannot be assessed only in terms of the volume of its own collection, but it is also necessary to quantify the efficiency of a collection, since the functioning of any tax system entails administrative expenses (burden). Direct administrative burdens include all the burden of public administration that are associated with the collection of taxes. Compared to the indirect administrative burden, direct burden are relatively easier to quantify using secondary data. Since it is not clear what the tax base and calculation procedure would be for a general road tax, we assume the current form of the road tax in the Czech Republic, knowing that the complexity of completing the return would not be significantly different even if environmental parameters of the vehicle were included.

Apart from the cost of time and the number of subjects, the third major factor determining the administrative burden incurred is the time that tax subjects or taxpayers must devote in order to comply with their obligation to declare and pay the tax. The first two factors in the form of the price of time and the number of subjects are relatively easy to define, whereas the parameters of the time factor, as well as its determinants, need to be obtained through empirical measurement. The research aims to synergistically use a neuroscience tool (eye-tracker) and a questionnaire survey to identify time variable parameters and factors in relation to the completion of a model road tax return in the Czech Republic and to verify the relevance of using eye-tracking to identify time variable parameters for the purpose of determining the indirect administrative burden of the general road tax in the Czech Republic.

1 Literature review

The theoretical definition of administrative burden is mainly related to the evaluation of the efficiency of tax systems. The administrative burden of taxation serves as one indicator of the efficiency of tax collection in tax systems. The efficiency of tax collection is one of the basic tax principles. The current state of knowledge in this area at the theoretical level is based on the tax canons formulated by Smith (2001). In addition to the principles of equality, accuracy and convenience of payment, it mentions the requirement of low burden in tax collection (economy of the tax system). Any tax should therefore be thought out and designed so that those burdened by the tax payment as little as possible over and above what the tax actually raises.

Administrative burden in the private sector are referred to as indirect administrative burden also called induced burden. In the case of road tax, this is the cost of taxpayers or taxpayers having to sacrifice time and financial resources to fulfil the obligations imposed on them by public authorities and institutions. These are therefore burden on the part of taxpayers that are incurred in order to fulfil a specific tax obligation. The indirect administrative burden of the road tax includes the burden of studying tax laws and regulations, tax advisors, completing the tax return, and keeping records of data used to correctly determine the tax. As with direct burden, these burdens are directly proportional to the complexity of the tax system. Quantifying indirect administrative burden is quite difficult (Kubátová 2003). The reason for this is that this burden cannot be statistically measured, and therefore it is only possible to estimate the amount of time taxpayers spend complying with their tax obligations. The time spent by taxpayers is therefore a key variable.

The measurement of indirect burden is based on a survey of taxpayers. Questionnaires, interviews with respondents, time and labour cost studies, and modelling of indirect burden for typical situations by estimating item burden related to tax compliance are used to measure indirect administrative burden (Pavel 2015).

A review of earlier studies between 1980 and 2002 in the area of administrative cost measurement is very well done by Evans (2003). More than 60 studies were conducted in the period covered by this review. Historically, administrative burdens related to taxes were first measured using the questionnaire survey method (Haig 1935). This study was primarily concerned with indirect burden, but an important finding of this research was that there is an inverse relationship between direct and indirect administrative burden, which was later confirmed by Chittenden, Foster and Sloan (2010).

A later alternative for determining the indirect burden incurred by individuals or entities as a result of the introduction of legislation by the central government is the Standard Cost Model (SCM). The purpose of the application of the method is to quantify the activities that the enterprise or entrepreneur has had to undertake redundant to meet the demands that have been directive to it. The essence of the SCM method is to measure the burden associated with a piece of legislation that mandates one or more information obligations (OECD 2003). It is necessary to assign the following parameters to the individual administrative activities that are included in the structure of the Standard Cost Model (SCM Network 2006). The basic formula of the SCM Z method is based on the multiplication of three parameters, i.e., Price, Time and Quantity. The price consists of the salary plus overheads if the activity is carried out within the entity itself. In the case of using external entities, the price corresponds to the hourly rate. Time is the amount of time a subject needs to perform an activity. The quantity is determined by the number of entities that are required to perform the activity and the frequency with which the activity must be performed each year. The strength of the SCM model is the precise measurement of administrative burden down to the level of individual tasks. However, the determination of a parameter such as time is based on the very subjective views of the interviewed firms or entrepreneurs.

Between 2006 and 2019, a major international study was published annually by the World Bank and PricewaterhouseCoopers (PwC 2020). This study sought to publish comparative analyses of tax systems in 191 economies to provide not only cross-country comparisons but also to help the global scene and country tax administrations learn from others. An important part of the comparative analysis was the comparison of the complexity of the tax systems of these economies. As part of these analyses, the study compared an indicator related to the difficulty

of paying taxes. This involved identifying the number of payments that taxpayers must make to meet their tax obligations in their tax jurisdiction and, in particular, the pool of time, expressed in hours, that must be spent to meet taxpayers' tax obligations. This international comparison in the number of hours taxpayers have to spend placed the Czech Republic, especially in the first year analysed, 2004, well above the world average. Specifically, the time to comply for the Czech Republic was 866 hours/year compared to the world average of 325 hours/year. In the following monitored years, the Czech Republic gradually approached the world average and in 2011 there was even a reversal and the Czech Republic (230 hours/year) surpassed the world average (268 hours/year). This trend continued in the following years and was maintained until 2018 (the last year of the analysis). In 2018, the Czech Republic achieved 230 hours/year in this indicator compared to the world average of 238 hours/year. The Czech Republic ranks 53rd internationally in the overall tax system complexity index. However, the study assesses and discloses the intensity of the tax system, or the individual types of taxes and the most important taxes individually, but not specifically the road tax.

The indirect administrative burden of the whole range of taxes applied in the Czech Republic, including the road tax, was estimated by Pudil et al. (2004). They estimated the indirect cost of the road tax at CZK 1.3 billion representing a 22.1% share of tax collection in the year under review.

In the area of indirect administrative burden, a study has been prepared in the Czech Republic (Vítek a Pavel 2008), which is based on a research sample of business entities and applies the results to the whole sector. It notes that for the entire Czech tax system, the indirect burden amount to approximately CZK 40 billion, i.e., 3.9% of the assessed tax. It quantifies the cost of the road tax at CZK 1.0 billion, representing a 16.4% share of tax collection in the year under review. These burdens may be underestimated by the public sector, according to the authors, and therefore it is necessary to have procedures to quantify them. Various marketing research tools are used to measure indirect burden, primarily in the form of questionnaire surveys, through which the necessary information to quantify indirect burden can be obtained from taxpayers. By re-processing the data from the 2008 questionnaire survey, Pavel (2015) identified the personal income tax on business income and the road tax in particular as inefficient in terms of indirect burden.

A modern research method with the potential for utility in the measurement of timing parameters in tax compliance in the form of tax return calculation is the eye-tracking experiment. An eye-tracker is a device used to track eye movement. The application of this device can be found in a variety of situations where we need to get information about what is getting attention. In the context of an application, eye-tracker can be found in fields such as neuroscience and psychology; industrial engineering; Marketing/Advertising; computer science and many others (Duchowski 2007). In the context of our topic focusing on the completion of tax return forms, we can see some analogies with studies focusing on the UX (User eXperience) of web forms (Tan 2009). The use of eye-tracker technology in the context of Accounting and Financial Reporting issues was discussed by Grigg and Griffin (2014). The authors focused their study on the area of financial reports in an effort to develop a set of guidelines that should lead to the creation of user-centred financial and business reports.

The issue of using new technologies in behavioural accounting experiments is addressed by Rotaru et al. (2018), who talk about so-called Neuroaccounting research, i.e., the use of neuroscience tools for accounting research. The eye-tracker is then mentioned here in the

context of the possibility of conducting studies on attention and pupil response, so-called pupillometry.

A similar topic is addressed by Tank and Farrell in their 2022 paper a who also discuss the use of neuroscience tools in Accounting Research. In their literature review, they divide the studies conducted into two categories in relation to accounting, namely: decision-facilitating (i.e., how individuals process information) and decision-influencing, i.e., how individuals respond to controls. In terms of its focus, our study can be placed in the first category, i.e., how individuals process information and subsequently work with their own requirements to correctly complete the tax return form.

2 Data and Methods

We are conducting a series of experiments on the indirect administrative burden of the general road tax using eye-tracking technology. The experiments are performed in the eye-tracking laboratory ETLab at PEF MENDELU in Brno. The SR Research EyeLink 1000 plus eye-tracker was used to perform the experiment. The design of the experiment and subsequent data collection was performed using SR Research WebLink software, and the evaluation of the eye-tracking data was performed using SR Research Data Viewer software. The experiment consisted of completing a road tax return form. This form was created in the cloud-based Google Sheets tool. The tax return form was divided into six thematic sections, with each section representing its own session that was recorded in the eye-tracker. To align the participants' baseline visual position, an intentional cross was displayed for 1000 ms before the start of each stimulus by placing it in the centre of the monitor. A Benq Zowie XL2430 monitor with a 24" diagonal, 16:9 aspect ratio and 144 Hz refresh rate was used to display the stimuli. Informed consent of the participant had to be secured prior to the start of each experiment, and the participant's identifying data were anonymised. Participants were first provided with basic information about the research, then the equipment was calibrated, and the settings validated, taking into account critical aspects with the potential to negatively determine the results, such as visual defects such as cataracts or astigmatism, the use of glasses with anti-reflective lenses, make-up, or sufficient head fixation. The participant then filled in the created road tax return form according to the assignment and the attached instructions, either for one vehicle (version B) or for three vehicles (version A). Next, the participant in the eye-tracking experiment completed a follow-up questionnaire. The survey was conducted through the Umbrella questionnaire system, which was developed and is administered by the home public institution of the authors of this research. The questionnaire itself was divided into headings focusing on tax returns in general and a section on participant identification. The number of participants in the eye-tracking research and the questionnaire survey was set at 60. Participants were then divided into two groups, A and B, due to the need to evenly distribute the two versions of the task among participants. Each group then contained an equal number of men and women with a quota distribution of two age groups with a cut-off of 40 years.

The actual eye-tracking research focused on monitoring participants' attention to completing the return form and on attention to the car information entered on the return. The results show in this paper focus on the overall time taken to complete a tax return in the context of the factors of participants' sex, education and previous experience of completing a tax return. For the first hypothesis, we focused on testing the hypothesis of no difference between the total time required to complete the return in the Group A and Group B conditions, i.e., when 3 cars and one car are completed. The second hypothesis aimed to test the significance of the difference in tax return completion in the context of sex.

Another hypothesis tested was the effect of education on the length of time it takes to complete a return. Considering the number of participants, we divided the sample in terms of education only into those with a university degree and those without a university degree.

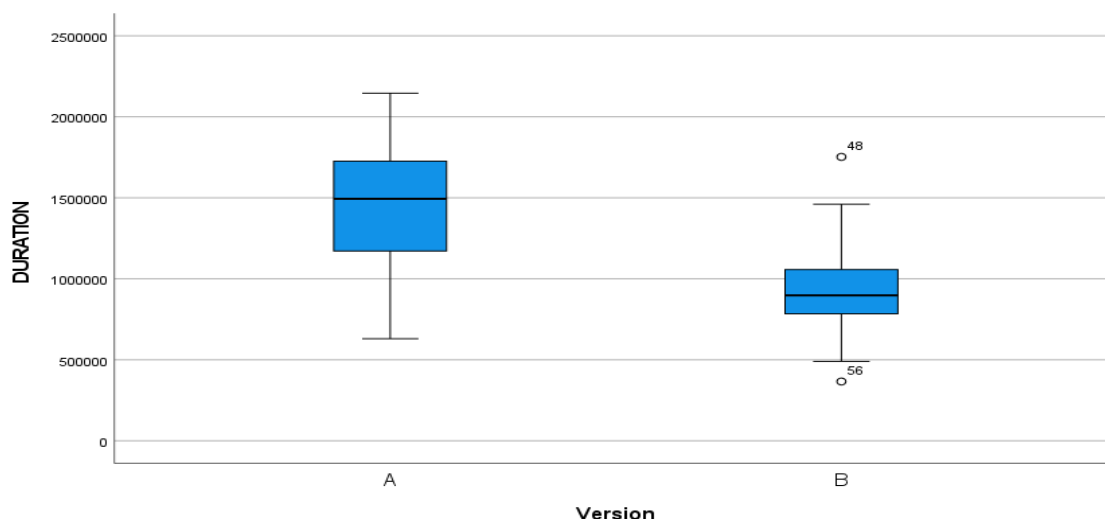
Time to complete the return in the context of previous experience of completing any tax return form was investigated under the fourth hypothesis. As in the previous cases, the testing was carried out separately for participant groups A and B.

In the context of the vehicle ownership factor, we expect that the person who owns the vehicle will be able to identify more quickly the technical information needed to complete the road tax return. Independent samples t-test was used for all the above hypotheses with a chosen significance level of $\alpha = 0.05$. Data were processed using MS Excel and IBM SPSS version 28 software.

3 Results

As part of the experiment, we primarily focused on the overall time needed to complete the road tax return in the context of the number of vehicles that participants were asked to fill in the tax return. In Group A, where the tax return was completed for a total of 3 vehicles, the average time to complete the return was 1445194.30 [ms], equivalent to 24 minutes and 6 seconds. In the case of Group B, it took a total of 924078.10 [ms] to complete the return, i.e., 15 minutes and 24 seconds after conversion to minutes. Within group A, we can further observe the following outliers: the shortest time to complete the return was 630826 [ms], i.e., 10 minutes and 30 seconds; the slowest participant managed to complete the return in 2145856 [ms], i.e., 35 minutes and 45 seconds. For group B, the outliers were relatively lower: the fastest completion time was 366175 [ms] (6 minutes and 6 seconds); the longest was 1752679 [ms] (29 minutes and 12 seconds). The characteristics of groups A and B can be seen in Figure 1.

Figure 1: Box plot dwell times of group A and B



Source: Own research

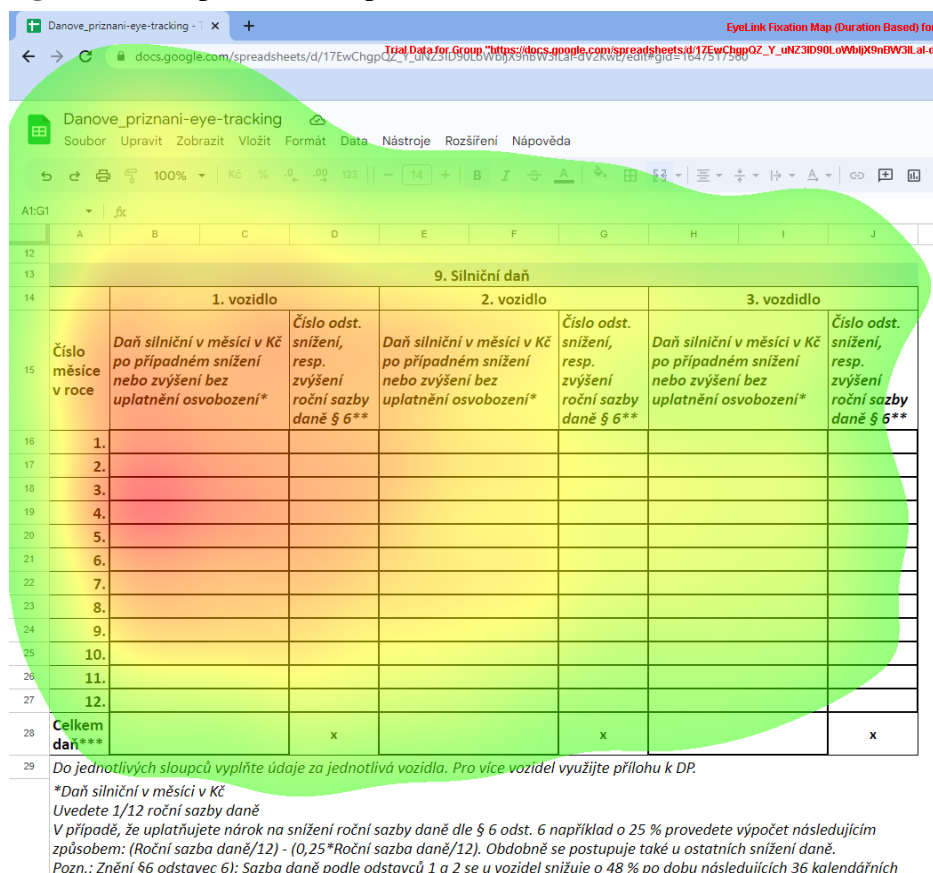
An "independent samples" t-test was used to test the hypothesis (H1) of no difference between the total time taken to complete the return in the Group A (3 cars) and Group B (1 car) conditions. Given a p value < 0.001 , we can reject the null hypothesis of no difference in return completion times and accept the alternative hypothesis. Thus, we can clearly say that the time required to complete a three-vehicle return is significantly different from the time required to complete a single-vehicle return.

The concentration of attention of the participants can be shown through the heat map in Figures 2 and 3. Figure 2 shows the heat map of the form of version A for three vehicles, Figure 3 shows the heat map of the form of version B for one vehicle.

From both pictures, it is apparent at first glance that the attention of the participants was concentrated mainly in the area of entering the information for the first vehicle into the column of the editable table (the red colour of the heatmap shows the highest concentration of attention). Participants also paid some attention to the command line, in which they performed their own calculations).

The expansion of the heat map in Figure 3 for a single vehicle extends to the second and third vehicle fill-in sections, which can be attributed to the scrolling of the participants when reading the instructions under the filled-in form. The actual difference between versions A and B is also illustrated by the number of fixations, i.e., moments when vision has stabilised at a certain point. A total of 72,380 fixations were recorded for version A, and roughly half the number for version B, namely 38,561 fixations. The difference in the number of fixations together with the results of the test performed above shows the difference in the complexity of filling in a different number of vehicles.

Figure 2: Group A Heat Map – table used for road tax calculation



EyeLink Fixation Map (Duration Based) for Trial Data for Group A: https://docs.google.com/spreadsheets/d/17EwChgpOZ_Y_uNZ3ID90LbWbJX9nBW3iLaFdvZKwE/edit#gid=1647517580

9. Silniční daň						
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Číslo měsíce v roce	Daň silniční v měsíci v Kč po případném snížení nebo zvýšení bez uplatnění osvobození*	Číslo odst. snížení, resp. zvýšení roční sazby daně § 6**	Daň silniční v měsíci v Kč po případném snížení nebo zvýšení bez uplatnění osvobození*	Číslo odst. snížení, resp. zvýšení roční sazby daně § 6**	Daň silniční v měsíci v Kč po případném snížení nebo zvýšení bez uplatnění osvobození*	Číslo odst. snížení, resp. zvýšení roční sazby daně § 6**
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Do jednotlivých sloupců vyplňte údaje za jednotlivá vozidla. Pro více vozidel využijte přílohu k DP.

*Daň silniční v měsíci v Kč
Uvedete 1/12 roční sazby daně
V případě, že uplatňujete nárok na snížení roční sazby daně dle § 6 odst. 6 například o 25 % provedete výpočet následujícím způsobem: (Roční sazba daně/12) - (0,25*Roční sazba daně/12). Obdobně se postupuje také u ostatních snížení daně.

Pozn.: Znění §6 odstavec 6): Sazba daně podle odstavců 1 a 2 se u vozidel snižuje o 48 % po dobu následujících 36 kalendářních

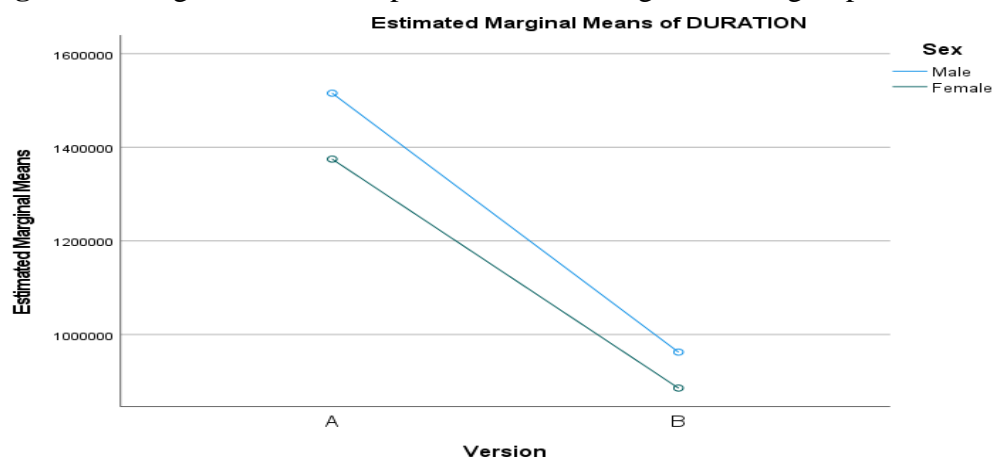
Source: Own research

Figure 3: Group B Heat Map – table used for road tax calculation

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Source: Own research

One of the sex stereotypes is the different approach to vehicle issues between men and women. As part of our research, we asked whether there is a sex difference also in the context of completing a road tax return. Looking at male/female differences across the experiment, we first make within-group comparisons. In group A (3 vehicles), males show an average completion time of 1515588.80 [ms] (25 minutes 15 seconds), and females show a value of 1374799.80 [ms] (22 minutes 54 seconds). On average, this is a difference of 140789 [ms] (2 minutes 20 seconds). Participants in group B then showed the following values: males averaged 962495.20 [ms] (16 minutes 2 seconds); females averaged 885661 [ms] (14 minutes 45 seconds). The difference in completion time between the sexes for group B was then 76834.2 [ms] (1 minute 16 seconds). Thus, in both groups, women showed shorter completion times. This fact is evident on the graph in Figure 4.

Figure 4: Marginal means comparison: context of gender and groups A and B

Source: Own research

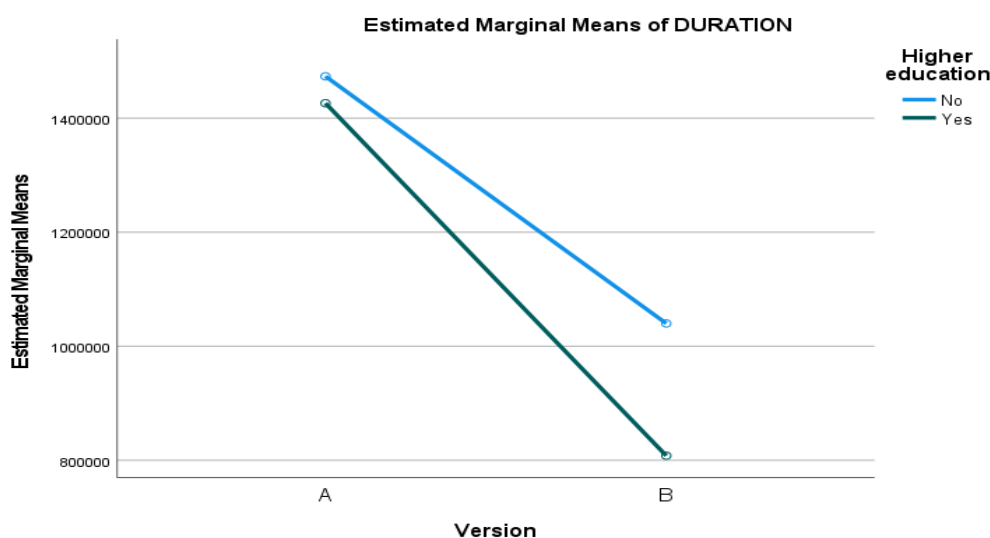
The "independent samples" t-test was used to test the significance of the difference. In the case of group A, given the p-value = 0.417, we do not reject H_0 , so there is no difference in completion time. For group B, the p-value = 0.236, where, given $\alpha = 0.05$, we again do not reject the null hypothesis. Thus, in the context of both results, despite the difference in means, we cannot tell that there is a significant difference in the time taken to complete the road tax return between the sexes.

Another aspect which we want to examine in the context of the timing of road tax returns is educational attainment. With regard to the number of participants, a comparison was made between participants with a university degree and those without a university degree. Again, comparisons are made on pairs of groups according to the number of vehicles that participants were assigned in the experiment. For Group A, those with less than a university degree, achieve an average time to complete the return form of 1473497.08 [ms] (24 minutes and 33 seconds), while those with a university degree achieve an average time of 1426325.78 [ms] (23 minutes and 46 seconds). The difference between the two averages is 46 seconds in favour of participants with a university degree. We test the significance of the difference using the "independent samples" t-test. Based on a p-value of 0.372 at $\alpha = 0.05$, we do not reject the null hypothesis and thus, do not find a significant difference between the length of completion in the context of education for Group A.

For group B we follow the analogy. Here, the group of people without a college degree shows an average time to complete the form of 1040065.00 [ms] (17 minutes and 20 seconds), while for those with a college degree, we find a total time of 808091.20 [ms] (13 minutes and 28 seconds). As in the case of Group A, the university-educated participants achieved a shorter time of 3 minutes and 51 seconds. The comparison using the "independent samples" t-test gives a value of $p = 0.012$, which, at a significance level of $\alpha = 0.05$, indicates rejection of the null hypothesis and acceptance of the alternative hypothesis. Thus, between the two groups of participants with different levels of education, we observe significant differences in the completion times of the returns. However, given the result of the first test for Group A, it cannot be said that educational attainment has a demonstrable effect on completion time.

The differences between the groups can be seen in the graph in Figure 5.

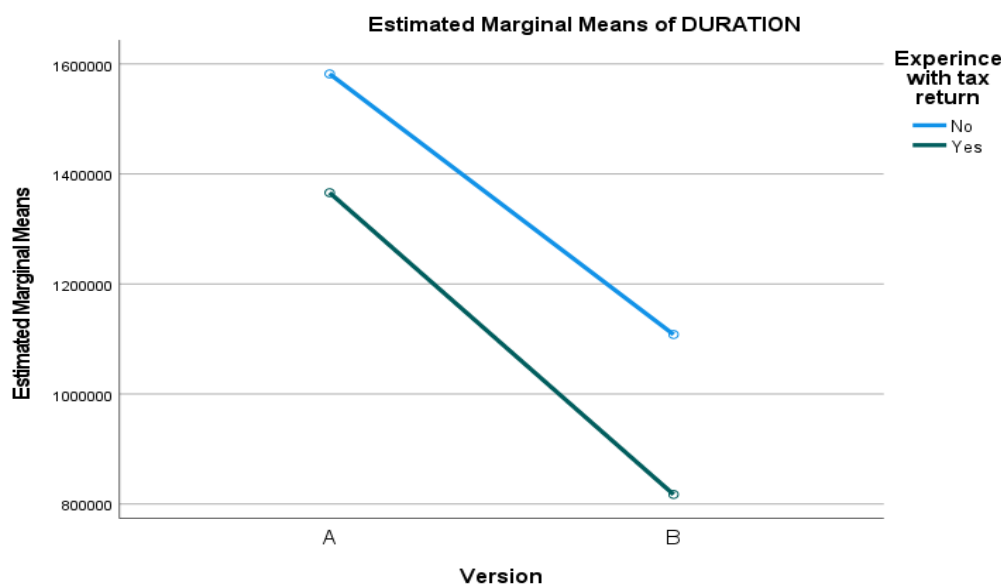
Figure 4: Marginal means comparison: context of education and groups A and B



Source: Own research

A factor that can significantly affect the time taken to complete the form is the previous experience of completing the tax return form in general. The key to inclusion in the test group was previous experience of completing any tax return form, i.e., not just experience of completing a road tax return. Analogous to the previous cases, testing was performed separately for groups A and B. Within Group A, 11 participants indicated that they had no previous experience with completing a tax return form. These participants showed a mean value of 1581934.00 [ms] (26 minutes 21 seconds). In contrast, the remaining nineteen participants with prior completion experience completed this task in a mean time of 1366029.21 [ms] (22 minutes 46 seconds). A t-test was performed to test the difference. The resulting p-value of 0.067 is higher than the significance level of $\alpha = 0.05$ and although this is a slight difference, we do not reject the hypothesis of no difference between the groups. Within Group B, the same number of participants (i.e., 11) indicated that they had no previous experience of completing a return. These participants had a mean completion time of 1108256.82 [ms] (18 minutes 28 seconds). The mean time for participants with prior experience completing the return form was then 817448.32 [ms] (13 minutes 37 seconds). As in the previous case, a t-test was performed. A p-value = 0.003 indicates rejection of the hypothesis of no difference in completion times, and thus we accept the alternative hypothesis, i.e., there is a significant difference in return completion times related to prior experience. Despite the fact that for the both of the groups we can observe more than a three-minute difference between the averages in completion times, (see the graph in Figure 6) with respect to the test result for Group A, it cannot be clearly stated that prior experience in completing a tax return has a significant effect on tax return completion.

Figure 6: Marginal means comparison: context of previous experience with tax return and groups A and B



Source: Own research

The last factor we have focused on so far is the vehicle ownership factor. In this context, we would expect the person who owns the vehicle to be able to more quickly identify the technical information needed to complete the road tax return. The average observation times for participant of group A can be observed in Table 1. The group of participants not owning a vehicle took on average 1 minute and 21 seconds longer to complete their return. To test the significance of the difference, a t-test was used again with a resulting p-value of 0.286. Thus, the difference between owners and non-owners is not significant in the context of the time of filing the return.

Table 1: Comparison of mean duration of road tax form filling in the context of car ownership (Group A)

Do you own car?	N	Mean duration [ms]
I don't own car	18	1477820.11
I own at least one car	12	1396255.58

Source: Own research

Similarly, when comparing participants who only processed returns for one vehicle (Group B), we can observe different average completion times in Table 2. Compared to group A, however, a longer completion time can be observed in the case of the vehicle owner group. Again, a t-test was used here to test significance, with a p-value of 0.406 indicating that there was no significant difference between the groups in the times taken to complete the returns.

Table 2: Comparison of mean duration of road tax form filling in the context of car ownership (Group B)

Do you own car?	N	Mean duration [ms]
I don't own car	19	914346.63
I own at least one car	11	940887.00

Source: Own research

Given the test results for both groups, it can therefore be concluded that vehicle ownership does not have a significant effect on the length of the tax return.

Conclusion

An examination of the time taken to complete a road tax return using eye-tracking in relation to the number of vehicles completed logically showed that the time taken to complete a three-vehicle tax return was significantly different from the time taken to complete a single-vehicle tax return; moreover, the variability of values was much higher for the multi-vehicle option than for the single-vehicle option. This is also confirmed by the numbers of fixations measured when processing the output data of the eye-tracking experiment. The identified differences in the times and numbers of identified fixations needed to fill in options A and B for three vehicles and one vehicle show that filling in a higher number of vehicles brings time savings of scale for the participants. For this reason, a regressive impact of the administrative burden generated can be assumed, with a more significant impact on owners of a lower number of vehicles and thus generally on residents with lower incomes.

Although differences were identified in the mean values of the time taken to complete a tax return depending on whether men or women completed the return, we cannot say that there is a significant difference in the time taken to complete a road tax return in this respect. Between the two groups of participants with different educational attainment (university, less than university), we observe significant differences in the time to complete the return only for group B. However, given the test result for group A, it cannot be argued that educational attainment has a demonstrable impact on completion time. The regressive impact from this point of view cannot therefore, be clearly demonstrated.

Given the differences in the results of Groups A and B confirming or not confirming the existence of an association between prior experience in completing returns and the time taken to complete a road tax return in the experiment, it cannot be said in aggregate that prior experience in completing a tax return has a significant effect on the completion of a tax return. Thus, if the subject of the tax and thus the circle of taxpayers were to expand, it cannot be

argued that the impact of administrative burden would be demonstrably higher for taxpayers filing a tax return for the first time.

Considering the test results for both groups, we find that vehicle ownership does not have a significant effect on the length of the tax return.

After conducting the eye-tracking experiment and the related questionnaire survey, it can be said that the use of a neuroscience tool is relevant for identifying time-variable parameters. These results will be the input variable for determining the indirect administrative costs of taxes using the valuation of time resulting from the questionnaire survey, which is planned for the future. In addition, the use of a standard questionnaire survey method which was already done and eye-tracking technology brings a synergistic effect through the possibility of examining cross-links between socio-demographic variables and data collected in a time study.

In further processing the data from the experiment, we intend to focus on testing the hypothesis of the existence of economies of scale in terms of decreasing average time intensity with increasing frequency of vehicle returns, identifying the difficulty of individual tax return fields, time parameters of attention to individual items of the tax return instructions, or examining the cross-links between the time variable and other socio-demographic characteristics. It also offers an extension of the experiment conducted, both in terms of the number of eye-tracking participants and questionnaire respondents, and the variables included in the research. Given the capabilities of the eye-tracking device, another possible extension could be the observation of pupil dilation and pupillometry, in the context of cognitive load of the monitored individuals and subsequent comparison in the context of demographic data. Another possibility in the context of measuring cognitive load is the use of electroencephalography (EEG) technology, where it might be interesting to compare differences in the context of previous experience with the issue under study.

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