

Process Model of the Economic Efficiency of the Financial Administration of an EU Member State

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Abstract: The current reform of Slovakia's tax system is a part of the country's comprehensive tax and levies reform. The reform should contribute to improving and making public finances more efficient. However, its implementation in practice is problematic due to the attitudes and problems of both the professional public and business entities. The aim of this contribution is to help students and business entities to understand the tax system reforms. The contribution is based on information from the main actors of the tax reforms. The data were obtained during 3 months (2019 – 2020) using the questionnaire method. These were processed using basic statistical methods of the descriptive type, followed by an analysis of the principal factors and factor analysis. The factor analysis was crucial for our contribution because it identified 5 significant indicators with regards to the assessment of the reforms and the functioning of the tax system. Subsequently, a correspondence analysis was conducted of the factor "Electronisation/computerisation - greater user comfort" to find out the differences in the perception hereof among the respondents. The contribution therefore provides a new perspective on the evaluation and functioning of the reforms of the Financial Administration's management system in the Slovak Republic.

Within the framework of the research into this matter, and with a view to increasing the efficiency of the system globally, we also looked at the existing functional organizational structures and tax administration systems in Hungary, Poland, Czech Republic and Slovenia. On the basis of trend analysis, we can assume that the upcoming reform of the Tax and Customs Administrations will significantly contribute to the increasing efficiency of the system and to the positive perception of taxes, which are currently viewed as a socially unpopular obligation.

Keywords: tax system reform; financial administration; taxes; factor analysis; principal components

1 Introduction

The management of the Tax Administration in Slovakia is governed by principles introduced after 1989 [9, 13]. Despite efforts in recent years to decrease the number of employees, the system of administration of taxes in Slovakia can be considered to be inefficient in terms of the competitiveness of the state [10]. At present, the general tendency is to complain about the rigid, unfriendly, bureaucratic apparatus, which brings about an unwillingness of citizens to comply with tax obligations and the stricter regulations of the state. The consequences of this are the aforementioned decrease in competitiveness of the state and a lack of credibility in the eyes of citizens [11, 19].

The aim of this contribution is to help students and business entities to understand the tax system reforms. The contribution is based on information from the main actors of the tax reforms.

1.1 Trends in the management of the Tax Administration in the Slovak Republic

The starting point here is the programme declaration of the government of 4 November 2002, which states, under the section "Economic Policy", the following objectives in the area of the administration of taxes: simplify tax legislation; amend parts of tax laws which allow for ambiguous interpretation; simplify the system of penalties; decrease direct taxes; shift the tax burden from direct taxes to indirect taxes; review and re-evaluate the application

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of property tax rates; unify income tax rates; analyse possibilities of introducing a single tax (rate); strengthen own tax incomes of municipalities; determine own tax incomes of higher territorial units; ensure strict, direct, just and efficient tax collection and decrease tax rates; reduce tax evasion; create a new system of horizontal financial settlement [1, 14, 22].

The Slovak Republic, not only thanks to the tax reforms of 2004, which saw the introduction of a single tax rate, has joined the progressive states of the European Union and has significantly strengthened its attractiveness and competitiveness [25]. From the point of view of the levels of managing taxes within the Slovak Republic, the current situation can officially be defined as a two-level management system. However, by transposing some of the competencies of the Tax Directorate of the Slovak Republic on to the Branch Offices of the Tax Directorate of the Slovak Republic (hereinafter “BOTD”), it is actually a three-level management system, based on the need to efficiently manage 102 local tax offices, which cannot be assured from one central point [1]. The organization of the Tax Administration in this way is not ideal from several reasons [2, 15]:

the performance of the main business processes is scattered throughout the whole territory, when each local tax office (whether small, middle-sized or large) carries out all the processes related to the administration, audit and enforcement of taxes, disabling thus the optimization of the performance of these processes as well as costs for their performance from the point of view of the tax administration as a whole [3, 29, 20];

the system of the distribution of local tax offices is not flexible enough because it does not enable adjustments to the allocation of the main organizational units to the needs of the taxpayers [4, 16, 27];

BOTD have become an administrative level of management within the current system of management, and for quite some time it has been clear that there is a need to concentrate the performance of certain processes (such as book-keeping, salaries) because these are unnecessarily split between TDSR and BOTD, which therefore increases the intensity of the administration and communications (e.g. demand excessive administration and communications) [5, 17];

in performing the work tasks of the employees of BOTD, some problems occur which are typical for organizations that apply other levels and types of management apart from linear management (such as project, technical, methodological, etc.) [2].

Based on the aforementioned, the outline of the planned reforms takes into account the principle of justice, neutrality, simplicity and unambiguity, efficiency and the elimination of double taxation. Analyses by the Institute of Financial Policy conducted between 2001 – 2004 show the reasons and obvious need for reforms [17]:

- complicated tax legislation – intelligibility;
- too many exceptions, exemptions and allowances leading to social ineffectiveness because the production and consumption is not governed by demand and supply but by tax advantages;
- variability of setting tax base enabling optimization on the side of the taxpayer is increasing administrative costs and decreasing the efficiency of control.

From the point of view of the management and organization of the Tax Administration, further reasons can be:

- complexity of organizational structure – ambiguity and duplicity of the functions and competences at the central and regional levels;
- costly administrative apparatus of the Tax Administration;
- non-transparent project management, decreased possibility of controlling processes;
- unwillingness of taxpayers to pay taxes.

The intention of the Slovak government, as stated in the previously referenced programme declaration is to implement reforms of the Tax Administration in such a way that will make it more effective, with the aim of providing methodological assistance to compliant taxpayers and detecting those taxpayers who are avoiding taxes [21]. The objective is to create the conditions necessary for the efficient coordination of public authorities, to guarantee access to the internet for all citizens and to secure the interconnection of public authority information systems. Another priority of the Ministry of Finance of the SR is to reform the Customs Administration, with the aim of unifying the processes for the collection of taxes, fees, duties and contributions. The reform should proceed in two phases. The first stage is the merger of the tax and customs administrations. The second stage will unify the collection of taxes, fees, duties and insurance contributions [18, 26].

2 Methodology

The results of the questionnaire survey and the presented analyses will enrich the knowledge and help people understand the reforms of the tax system in the Slovak Republic from the point of view of their main participants, namely entrepreneurs and financial administration offices.

When interpreting the results of the analyses, it should also be borne in mind that all the conclusions are based on the subjective self-evaluation of the respondents.

This contribution presents the views and attitudes of a third, very important group of the population - students. The main research objective is to determine the main indicators for assessing the reform of the management of the Financial Administration of SR. By deconstructing the main objective of the research, it is possible to determine partial objectives:

1. To determine and subsequently analyse the differences in points of views of the three main targets of the research - entrepreneurs, financial administration authorities and students.
2. To analyse the relationships and differences in opinions with regards to the identified key factors of the tax system reforms according to entrepreneurs, financial administration authorities and students.

In order to obtain the most relevant data to identify the main indicators of tax reform, a simple questionnaire survey built on the Likert scale was used. The categories were as follows:

1. Willingness of tax office employees
2. Competence of tax office employees
3. Tax collection – process/method and simplicity
4. Collection of tariffs/customs – process/method and simplicity
5. Collection of levies - process/method and simplicity
6. Administrative difficulty of the tax and customs agenda
7. Time savings
8. Availability
9. Electronisation/computerisation – greater user comfort
10. Transaction costs
11. Postage costs
12. Labour costs

Key criteria were selected based on the expected benefits of the reforms (if implemented). This represents both qualitative and quantitative research based on the facts associated with the reforms (as mentioned in the introductory part of this contribution). The aim of the questionnaire survey was to identify the needs and expectations of the people most affected by the reforms. In addition, our research spontaneously reveals the need for the reforms, their effectiveness and inefficiency. The analysis of individual segments is based on the experience of the respondents and the perception of the benefits of the tax and customs reforms from a citizen's point of view. The survey, as well as the selection of the representative sample, were carried out as follows:

Tax Reform and its Expectations – selected results of the survey [3]

- time schedule of the conducted survey: 01/11/2019 - 31/1/2020
- geographical structure: Prešov and surroundings, Košice and surroundings, Banská Bystrica – town, Bratislava – city
- age structure of respondents: 18 – 60 years
- employed as: clerks, businessmen, students, some did not disclose their occupation
- representative sample: 1,500 (see Table 1)
- number of collected and completed questionnaires: 2,963

- The representative sample (1,500 respondents) was selected by applying a random number generator to the 2,963 completed questionnaires to generate a sample set of roughly the same number of males and females, as well as geographical areas - the four largest towns/cities in Slovakia (Prešov and surroundings, Košice and surroundings, Banská Bystrica – town, Bratislava – city).

The actual processing of the data was carried out as follows:

1. Analysis of the main components;
2. Factor analysis;
3. Scatter analysis;
4. Correspondence analysis.

However, the focus of the analysis is on the results of the factor analysis. Factor analysis is a multidimensional statistical method that focuses on generating new variables and attempts to reduce the amount of data (data reduction) with the minimum loss of information. It is based on the assumption that the dependence between the observed variables is due to the effect of a smaller number of non-measurable variables in the background, which are referred to as common factors. These common factors are defined as a linear combination of original variables. The main objectives of factor analysis are to find out and use the structure of common factors that are considered to be the hidden causes of mutually correlated variables to explain the observed dependencies in the best way possible.

Table 1. Quantitative analysis by age of the respondents

Category	Frequency: Age			
	Frequency	Cumulative (Frequency)	Relative (Frequency)	Cumulative (Relative Freq.)
26 - 35 years old	369	369	24.60000	24.6000
36 - 45 years old	359	728	23.93333	48.5333
46 - 60 years old	388	1116	25.86667	74.4000
18 - 25 years old	384	1500	25.60000	100.0000
ChD	0	1500	0.00000	100.0000

Source: Authors.

3 Results and Discussion

3.1 Analysis of the research file

The respondents were divided into four categories (intervals) according to the classification of the Statistical Office of the Slovak Republic, based on their age: 18 - 25 year olds, 26 - 35 year olds, 36 - 45 year olds and 46 - 60 year olds. The first group (18-25 year olds) features 394 respondents, representing 26.27%. The second group (26-35 year olds) features 348 respondents, representing 23.20%. The third group (36-45 year olds) features 291 respondents, representing 19.40%, and the last group (46-60 year olds) features 467 respondents, representing 31.13%. A detailed breakdown of the distribution of respondents with regards to three basic identification criteria (employment, gender and geographical distribution) for the first and fourth age groups, i.e. 18-25 year olds and 46-60 year olds, is presented in Figure 1 [3].

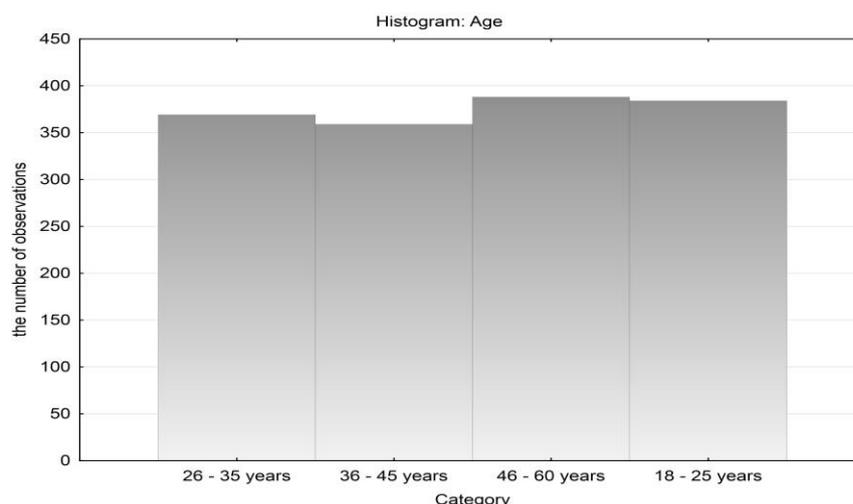


Figure 1. Distribution of respondents by age

Source: Authors.

Based on KMO test results, we can state that the achieved value 0.895 points to the suitability of using factor analysis for processing the research data. Bartlett's test of sphericity produced a value of 91.564, with 66 degrees of freedom. The corresponding p-value is 0.001, so the hypothesis that the realization of a selection correlation matrix with 12 considered variables is a unit matrix is rejected on the asymptotic level of significance 0.05. The assumptions for the application of factor analysis have therefore been fulfilled and its usage for the data analysis justified [1,18].

3.2 Results of the analysis

The Crombach alpha coefficient was used to assess the reliability of the research tool used. The calculated value was 0.856371. Based on this result, it is possible to say that it is not necessary to remove any variable to increase the alpha value because the change would be negligible. Since the value of Cronbach's alpha exceeds 0.7, it can also be said that the research tool is reliable and that it is possible to continue to work with the data obtained.

The aim of the principal component method is to simplify the description of a group of mutually dependent characters, namely the decomposition of the source matrix. Each of the principal components represents a linear combination of the original characters. The main components are ranked according to their importance - decreasing variance (see Table 2). It follows that most of the information about the variability of the original data is centred in the first principal component and the least information in the last principal component.

Table 2. Table of custom numbers from the source matrix

Value number	Eigenvalues of correlation matrix, and related statistics			
	Eigenvalue	% Total variance	Cumulative Eigenvalue	Cumulative %
1	1.793891	14.94909	1.79389	14.9491
2	1.148705	9.57254	2.94260	24.5216
3	1.086579	9.05482	4.02917	33.5765
4	1.046359	8.71966	5.07553	42.2961
5	1.001378	8.34482	6.07691	50.6409
6	0.960782	8.00651	7.03769	58.6474
7	0.940269	7.83558	7.97796	66.4830
8	0.911057	7.59215	8.88902	74.0752
9	0.876618	7.30515	9.76564	81.3803
10	0.822587	6.85489	10.58822	88.2352
11	0.818052	6.81710	11.40628	95.0523
12	0.593724	4.94770	12.00000	100.0000

Source: Authors.

Table 2 shows that the first principal component features 14.949% of the original data variance, the second principal component features 9.572%, the third 9.055%, the fourth 8.719% and the fifth 8.344%. These five principal components, whose own number is greater than 1, amass 50.649% of the variance of the original data of the research file. These results will be used to describe and identify factors within the factor analysis. The scatter plot (see Figure 2) suggests that the first principal component, Component 1, divides respondents' responses into two clusters separated by a vertical axis. These clusters are more apparent in the charts featuring components 3, 4 and 5. The scatter plot shows that the combination of components 2 to 5 does not form these clusters as the research objects are centralized approximately in the centre of the coordinate system. On the other hand, it is possible to identify outlying respondents in terms of their views on the reform of the tax system (e.g. respondent 716 shows different behaviours with regards to components 1 and 2; respondent 870 with regards to components 2 and 3).

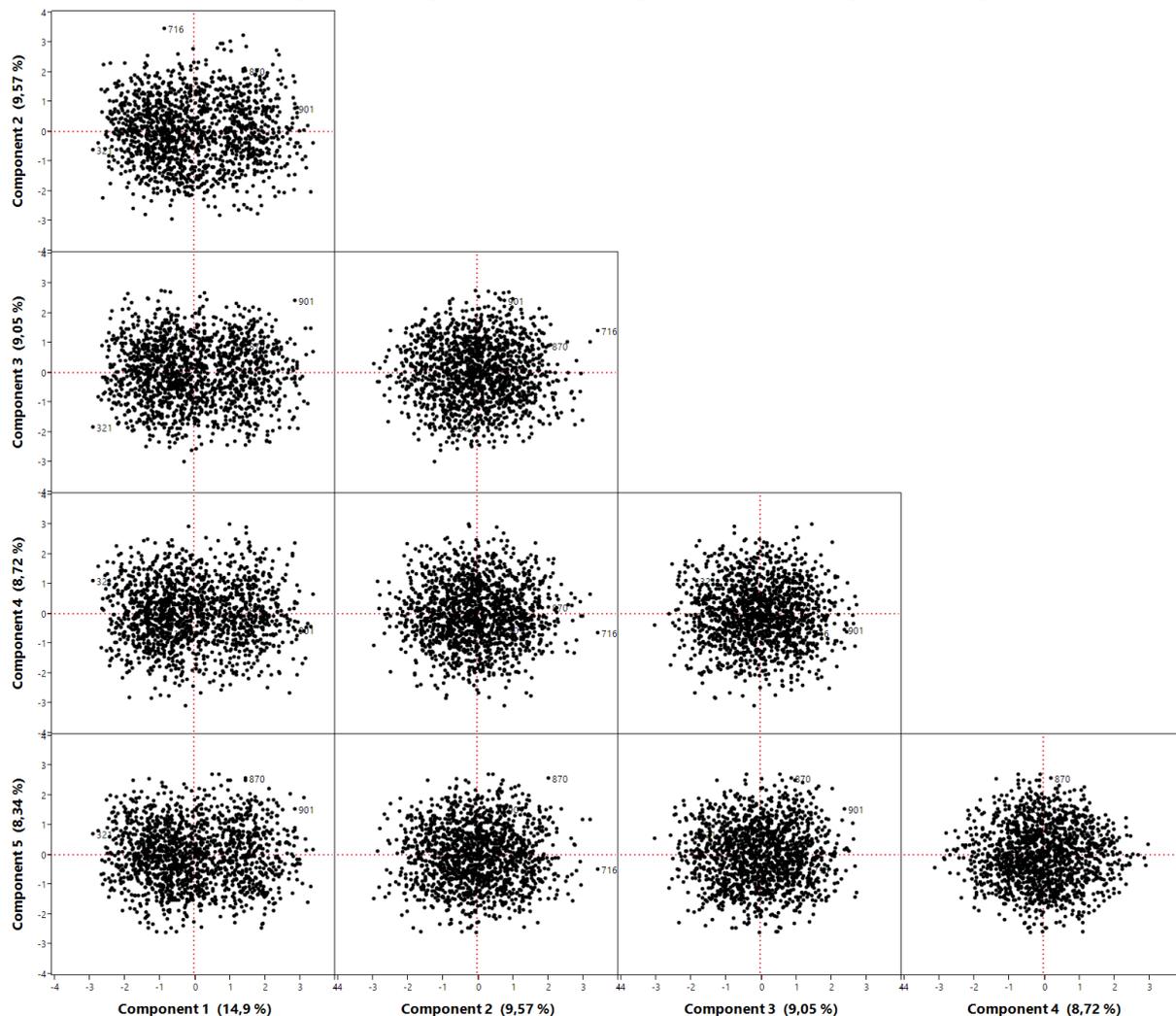


Figure 2. Scatter plot of components' scores

Source: Authors.

From the scatter plots and the figure containing the component weights of the group of respondents identifying themselves as “entrepreneurs” and the first and second principal components (see Figure 3), the following conclusions can be drawn. A positive correlation for the group of “entrepreneurs” was identified for Collection of levies - process/method and simplicity and Availability, while no correlation was found with Postage costs. On the other hand, a negative correlation exists between Transaction costs and Postage costs. With regards to the second principal component, there is a positive correlation between the Collection of tariffs/customs - process/method and simplicity, Time savings and Labour costs. From the point of view of importance, Postage costs, Labour costs, Transaction costs and Electronisation/computerisation - greater user comfort are the most important factors for the group of entrepreneurs. It can be further inferred from the figure of the component weights that the least important factor for the entrepreneurs is the Administrative difficulty of the tax and customs agenda. The very last two conclusions are closely related - the importance of electronisation. It can be assumed that if the computerization of the tax system reaches the required level, in terms of compliance and convenience, then

Willingness of tax office employees will become a pointless indicator. From the scatter plot it is clear that the attitudes of entrepreneurs towards the items of the research tool are almost homogeneous. However, this can only be said when accepting the assumptions of the analysis without taking into account differences between men and women, age categories and geographical location. These assumptions form the basis for the conclusions drawn for the group of clerks and students (see Figures 4 and 5).

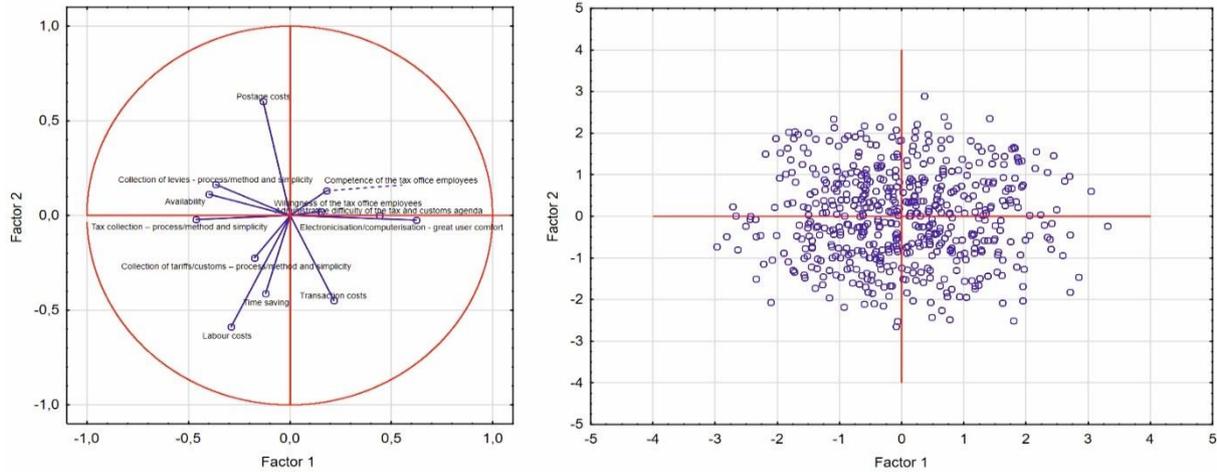


Figure 3. Component weights chart and scatter plot for the group “entrepreneurs”

Source: Authors.

As far as the group “clerks” and the first and second principal components are concerned (see Figure 4), the variables Time Savings and Competence of tax office employees correlate positively in the first quadrant of the chart. Another positive correlation is found between Labour costs and Electronisation/computerisation - greater user comfort and between Administrative difficulty of the tax and customs agenda and the Collection of levies - process/method and simplicity. At the same time, it is necessary to point out the indirect correlation between Electronisation/computerisation and the Administrative difficulty of the tax and customs agenda. Even though the item Electronisation/computerisation - greater user comfort is not significant for the group “clerks”, the indirect correlation indicates that clerks are also of the opinion that if the electronic tax system is simplified, it would minimize administrative difficulties. In terms of the least important, clerks identify Tax collection - process/method and simplicity, Electronisation/computerisation - greater user comfort and Postage costs. On the contrary, the most important are Willingness of the tax office employees, Competence of tax office employees and Administrative difficulty of the tax and customs agenda.

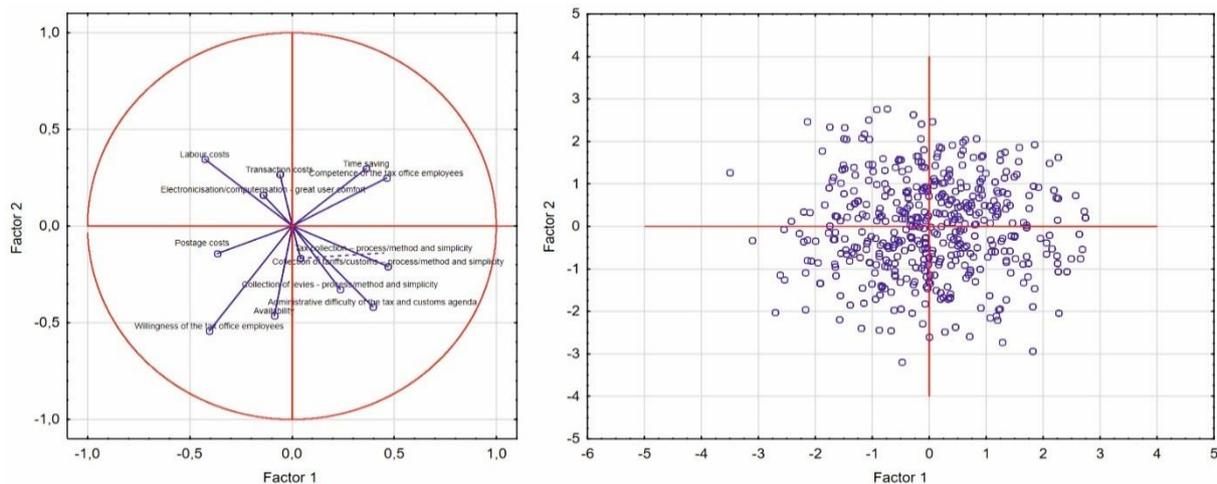


Figure 4. Chart of Component Weights and the Scatter Plot for the "Clerks “

Source: Authors.

As far as the group “students” and the first and second principal components are concerned (see Figure 5), a positive correlation exists between the Transaction costs and Electronisation/computerisation - greater user comfort, and between Administrative difficulty of the tax and customs agenda and Willingness of tax office

employees. In terms of the most important, students identified Time savings, Tax collection - process/method and simplicity and Postage costs. Students consider Administrative difficulty of the tax and customs agenda and Availability to be the least important. From these three graphs it is possible to deduce the differences in the perception of the importance of the research parameters among the three groups surveyed - entrepreneurs, clerks and students.

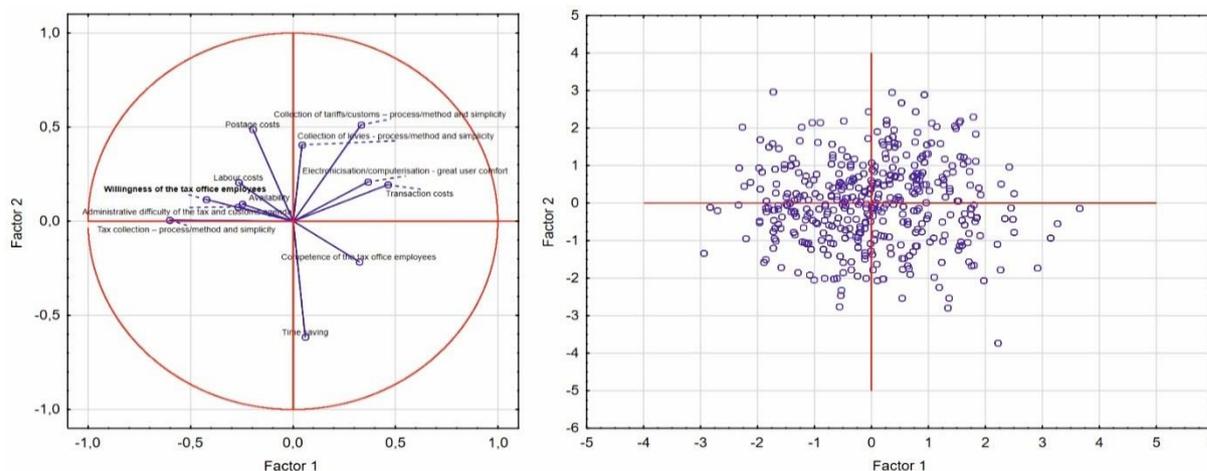


Figure 5. Component Weights Chart and the Scatter Plot for the "Students"

Source: Authors.

The basic indicators for determining the suitability of the use of factor analysis are KMO statistics and Bartlett's test of sphericity. Kaiser-Meyer-Olkin's statistics (KMO) are an index that compares the size of the experimental correlation coefficients to the size of the partial correlation coefficients. If the sum of the squares of the partial correlation coefficients is smaller compared to the sum of the square correlation coefficients, the KMO is close to 1. Low KMO statistical values indicate that factor analysis of the original characters is not suitable because the correlation between the pairs of characters cannot be explained by other characters. According to the value of KMO statistics (0.645) and according to Kaiser's definition, it can be said that the correlation rate is good and that the choice of factor analysis is justified. Bartlett's test of sphericity is a statistical test of the correlation between the original characters. It tests the zero hypothesis (H0: There is no correlation between the characters), so the correlation matrix is the unit matrix. The significance of the Bartlett test of sphericity $p = 0.000$ is less than the chosen level of significance $\alpha = 5\%$ and therefore the zero hypothesis is rejected. It is therefore possible to state that factor analysis is suitable for analysing the data concerning the reform of the tax system.

Table 3. Assumptions for the use of factor analysis

Kaiser-Meyer-Olkin measure of sampling adequacy.		.645
Bartlett's test of sphericity	Approx. Chi-Square	584.448
	df	66
	Sig.	.000

Source: Authors.

One of the basic tasks of factor analysis is the reduction of the original number of characters. The basic premise is to get the right combination of original characters to explain the scattering, and then to search for combinations that are increasingly smaller and smaller. This contribution focuses on the criterion of own numbers. The own number criterion - factors that match a number greater than 1 are, according to Keiser, considered statistically significant. On the contrary, factors whose own number is less than 1 are statistically insignificant. Based on Table 1 and Kaiser's criterion of statistical significance, five factors can be identified whose own number is greater than 1. The cumulative of these five factors explains 50.6409% of the total variance. The first common factor represents 14.94909% of the scatter, the second 9.57254%, the third 9.05482%, the fourth 8.71966% and the fifth 8.34482% of the total scatter.

The first step in interpreting the results of the factor analysis is the factor matrix analysis (see Table 4), which gives us the initial number of factors. The factor matrix contains factor loads for each character and factor, and represents the best linear combination of original characters while including as many characters as possible. The first factor is always the most important because it represents the best linear relationship found in the original characters. The second factor is the second best representation of the linear relationship. However, there is a limitation to it - it must be orthogonal to the first factor. The factor load explains the role of each original character

while defining a common factor. It is actually the correlation coefficient between each original character and the factor.

Table 4. Factor load table

Variable	Factor loadings extraction : Principal components (Marked loadings are >.550000)				
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Willingness of tax office employees	-0.490469	0.312143	0.035937	0.035268	-0.066297
Competence of tax office employees	-0.756493	-0.001618	-0.015697	-0.075119	0.114479
Tax collection – process/method and simplicity	0.028661	0.620819	-0.295487	0.132194	0.239475
Collection of tariffs/customs – process/method and simplicity	0.022983	-0.101647	0.288631	-0.521288	0.699792
Collection of levies - process/method and simplicity	0.047041	0.376630	-0.037996	-0.569445	-0.034917
Administrative difficulty of the tax and customs agenda	0.670673	-0.073099	-0.025161	0.040498	-0.137827
Time savings	-0.251409	-0.116226	-0.655635	-0.037791	0.105068
Availability	0.153056	0.457617	-0.198887	-0.350003	-0.343257
Electronisation/ computerisation - greater user comfort	-0.448133	-0.208580	-0.009483	-0.000949	-0.110170
Transaction costs	-0.092307	-0.308164	0.084271	-0.518963	-0.465836
Postage costs	-0.050492	0.376508	0.642661	0.166675	-0.092219
Labour costs	0.478705	-0.071952	-0.150750	-0.057563	0.223821
Expl.Var	1.793891	1.148705	1.086579	1.046359	1.001378
Prp.Totl	0.149491	0.095725	0.090548	0.087197	0.083448

Source: Authors.

From Table 4, it is clear that the first factor correlates significantly with Administrative difficulty of the tax and customs agenda. The factor load values reach 75.6493% for Competence of tax office employees and 67.0673% for Administrative difficulty of the tax and customs agenda. The analysis of Factor 1 shows that 57.223% of the variability of the Competence of tax office employees and 44.981% of the variability of the Administrative difficulty of the tax and customs agenda is explained by the first common factor. The second common factor correlates with the item Tax collection - process/method and simplicity of the research tool with the factor load value of 62.0819%, whereby 38.542% of the variability of this item is explained by the second common factor. The third common factor correlates significantly with Time savings and Postage costs. The factor load values are -65.5635% for Time savings and 64.2661% for Postage costs. Based on the analysis of Factor 3, we can state that the 42.986% variability of the Time savings item and the 41.301% variability of the Postage costs is explained by the third common factor. The fourth common factor correlates with Collection of levies - process/method and simplicity of the research tool with a factor load value of -56.9445%, whereby 32.427% of the variability of this item is explained by the second common factor. The fifth common factor correlates with Collection of tariffs/customs – process/method and simplicity with the load factor of 69.9792%, whereby 48.971% of the variability of this item is explained by the second common factor. In so ascertaining, the practical importance of the factors has been verified.

Based on the above, we can therefore postulate the factors that should be the main research objectives:

- Factor 1 – Competence and Administrative difficulty
- Factor 2 – Tax collection
- Factor 3 – Time savings and Postage costs
- Factor 4 – Collection of levies
- Factor 5 – Collection of tariffs

Factor analysis focuses mainly on factor model parameters. Common factor estimates, called factor scores, may be required. The values of the common factors for the selected objects or observations are not only a useful tool for data diagnostics, but also, where necessary, as inputs for further analyses. The factor score is an estimation

of parameters based on common sense because it estimates unobserved values. Estimates of the factor score for a given object can be represented as the coordinates of this object in the R-dimensional space.

Table 5. Factor score coefficients

Variable	Factor score coefficients rotation : Varimax normalized extraction : Principal components				
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Willingness of tax office employees	0.313260	-0.137702	-0.107087	0.133449	0.094002
Competence of tax office employees	0.413710	-0.001934	0.092446	-0.027742	-0.125672
Tax collection – process/method and simplicity	0.038782	-0.615576	0.074223	0.230054	0.023989
Collection of tariffs/customs – process/method and simplicity	-0.009761	-0.006138	-0.024719	0.019145	-0.902220
Collection of levies - process/method and simplicity	0.032871	0.037248	-0.004882	0.596863	-0.219229
Administrative difficulty of the tax and customs agenda	-0.377910	0.066310	-0.028692	0.019058	0.128076
Time savings	0.078301	-0.115548	0.619134	0.027501	0.052065
Availability	-0.023931	0.011181	0.017036	0.627254	0.185583
Electronisation/computerisation - greater user comfort	0.220404	0.193086	0.083401	-0.102637	0.064863
Transaction costs	0.035079	0.672051	0.034622	0.295748	0.038417
Postage costs	0.117976	-0.092137	-0.684152	0.011194	0.036032
Labour costs	-0.285506	-0.101049	0.158766	-0.017867	-0.173540

Source: Authors.

In line with the defined partial objectives of the research, the next part of this contribution analyses the opinions of the respondents represented by the factor scores in relation to the five extracted factors – factors of the tax system reforms using Fisher’s ANOVA (Analysis of Variance). In the analyses, consideration is only given to significant independent variables at the value of the relevant factor at the chosen level of significance $\alpha = 0.05$.

The analysis of scattering is a set of induction statistics procedures used to test hypotheses of mean values in a different, often complex configuration of experiments when testing more than two groups. The zero hypothesis in this case indicates that the test groups do not statistically significantly differ in the mean value.

Table 6. ANOVA for Factor 1 (Competence and Administrative difficulty)

Effect	Univariate tests of significance for Factor 1 : Sigma-restricted parameterization : Effective hypothesis decomposition				
	SS	Degrees of freedom	MS	F	p
Intercept	18.6060	1	18.6060	46.5828	0.000000
Age	1.1098	3	0.3699	0.9262	0.427321
Gender	0.3336	1	0.3336	0.8351	0.360948
Employment	846.2751	3	282.0917	706.2562	0.000000
Geographical distribution	0.7619	3	0.2540	0.6358	0.591955
Error	594.7339	1489	0.3994		

Source: Authors.

Competence and Administrative difficulty has a significant impact on Employment at a chosen significance level of 5%. Also, Intercept has a significant impact, integrating the influence of variables that have not been analysed in the research, namely age, gender and geographical distribution. If the factor score is considered to represent either agreement or disagreement with the given factor, the average value of the factor score in the group “entrepreneurs” is -0.58823 ± 0.05341 , for the group “clerks” it is 1.07095 ± 0.055511 , and for the group “students” -0.591651 ± 0.061451 . Based on the average score value and Figure 6, it is possible to conclude that students and entrepreneurs perceive Factor 1, defined as Competence and Administrative difficulty, negatively,

while clerks and respondents who did not report their job perceive it positively. At the same time, based on the Scheffe test, it can be stated that at the selected level of significance of 5%, the mean values of the factor scores for students and entrepreneurs can be considered identical ($p = 0.999851$) and statistically different from the group “clerks” ($p=0.00001$).

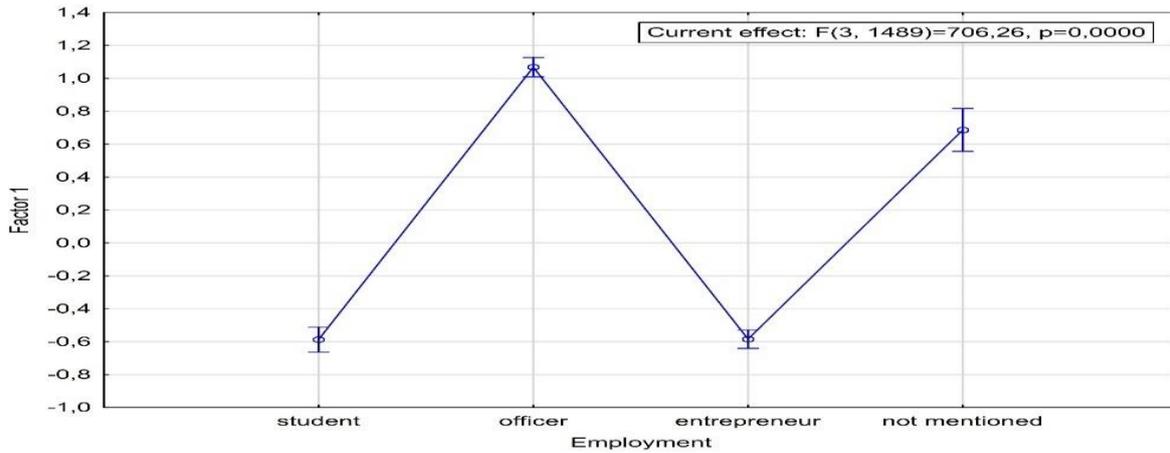


Figure 6. Factor score chart for Factor 1 and Employment
 (Factor 1 - Competence and Administrative difficulty)

Source: Authors.

When considering Factor 2 (Tax collection), the interaction between Geographical distribution and Employment ($p = 0.03518$) is seen as a significant influence that affects the change in the factor score. The average value of the factor scores for students in Prešov is -0.01858, Košice 0.03811, Banská Bystrica 0.02730 and Bratislava -0.18959. Students from Prešov and Bratislava have a negative attitude towards Tax collection (Factor 2), with a higher rate for students from Bratislava. Students from Košice and Banská Bystrica are slightly positive in this respect, with the average value in both cases almost identical. In the group “clerks”, the average value of the factor scores in Prešov is 0.02599, Košice -0.06077, Banská Bystrica 0.17242 and Bratislava -0.15917. The clerks in Banská Bystrica have a positive attitude towards Tax collection, while clerks from Bratislava perceive it negatively. The average value of the factor in the case of entrepreneurs from Prešov is 0.15264, Košice 0.04020, Banská Bystrica -0.13218 and Bratislava 0.07535. From the above average values, Tax collection is negatively perceived by entrepreneurs from Banská Bystrica, while entrepreneurs from Prešov see it positively. For more detailed information see Figure 7.

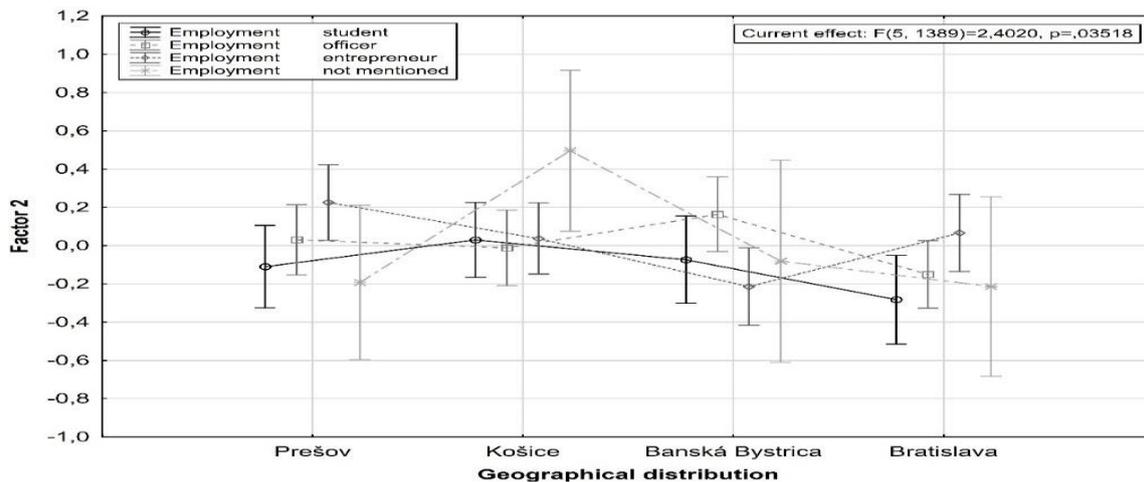


Figure 7. Factor score chart for Factor 2 and interaction between Geographical distribution and Employment
 (Factor 2 - Tax collection)

Source: Authors.

Factor 3, defined as Time savings and Postage costs, is significantly influenced by Employment at the chosen significance level 5%. The average value of the factor score for the group “entrepreneurs” is -0.182388, for “clerks” 0.147971, and for “students” -0.035865. From the average factor score value and Figure 8, it can be

concluded that Factor 3 is perceived by entrepreneurs negatively, whereas clerks, respondents who did not state their job and students perceive it positively.

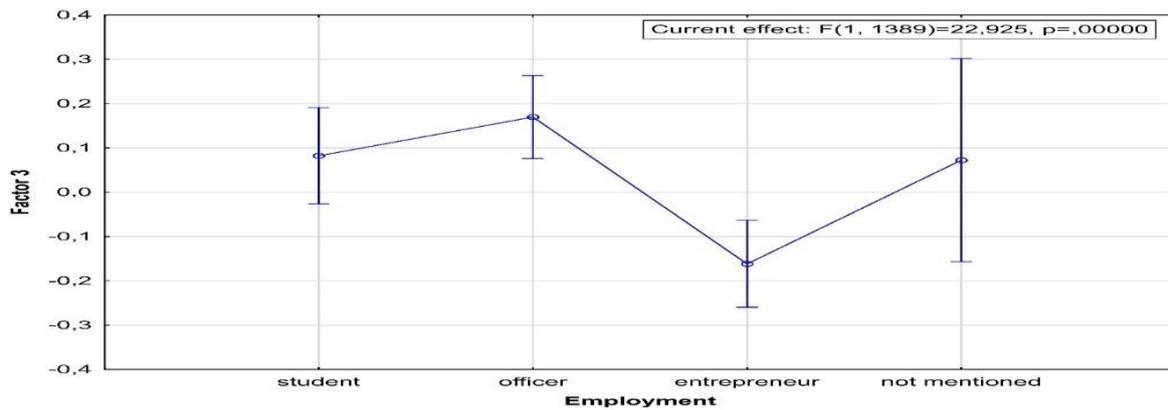


Figure 8. Factor score chart for Factor 3 and Employment

(Factor 3 - Time savings and Postage costs)

Source: Authors.

When analysing Factor 4 (Collection of levies), Geographical distribution and Employment ($p = 0.03412$) have a significant effect on the change of factor score. The average values of the factor scores for students in Prešov is 0.19017, Košice -0.113131, Banská Bystrica 0.04434 and Bratislava -0.08728. It follows that students from Košice and Bratislava have a negative attitude towards the Collection of levies (Factor 4), with a higher rate for students in Košice. Students from Banská Bystrica and Prešov are slightly positive towards Factor 4, while the average value of the factor scores is significantly higher for Prešov students. In the group “clerks”, the average value of the factor scores in Prešov is 0.02391, Košice -0.16331, Banská Bystrica -0.26136 and Bratislava 0.08506. Clerks from Prešov and Bratislava have a slightly positive attitude towards Factor 4, while in case of Košice and Banská Bystrica the score revealed the slightly negative attitude of the clerks living there. The average factor score for the group “entrepreneurs” from Prešov is -0.04147, Košice 0.05416, Banská Bystrica 0.03768 and Bratislava 0.06978. From the above average values, it follows that Collection of levies is negatively perceived only by entrepreneurs from Prešov; entrepreneurs from other cities perceive this matter positively. The conclusions are shown in Figure 9.

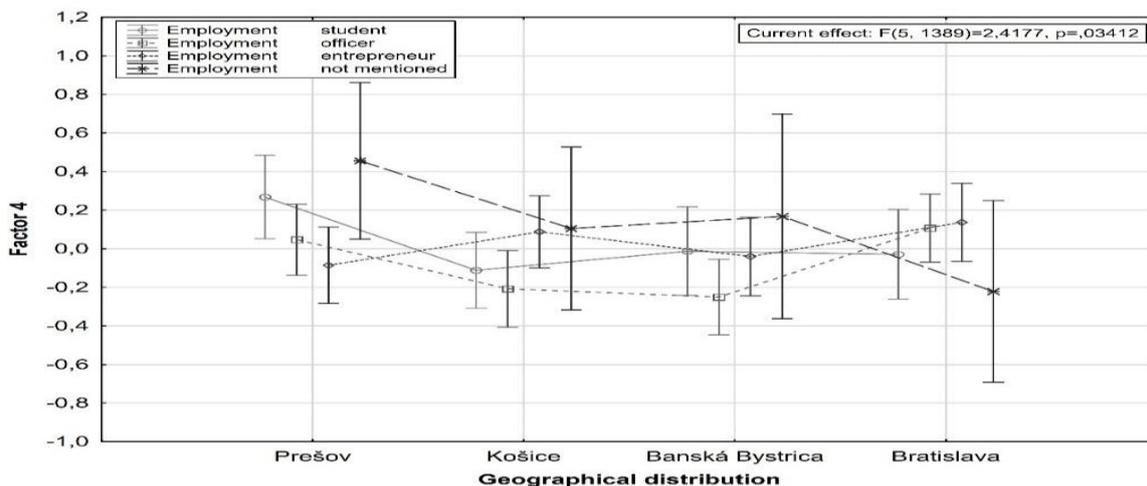


Figure 9. Factor score chart for Factor 4 and interaction between Geographical distribution and Employment

(Factor 4 - Collection of levies)

Source: Authors.

Factor 5, defined as Collection of tariffs, is significantly influenced by Age at the chosen significance level 5%. The average score for 18-25 year olds is 0.073782, 26-35 year olds -0.015995, 36-45 year olds 0.030348 and 46-60 year olds -0.133042. From the average score value and Figure 10, it can be concluded that Factor 5 is perceived by the respondents more negatively as they get older.

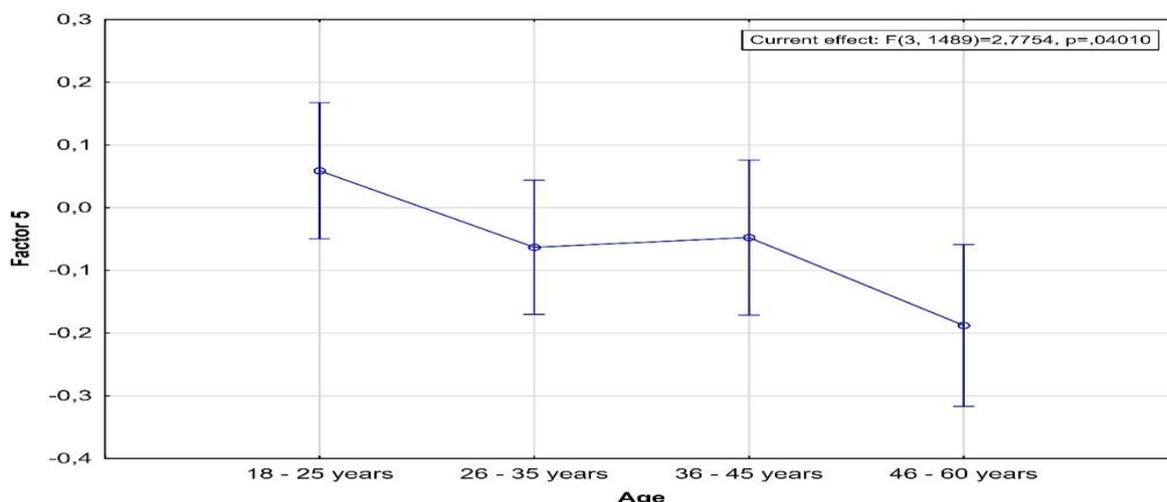


Figure 10. Factor score chart for Factor 5 and Age

(Factor 5 – Collection of tariffs)

Source: Authors.

An excessive and disproportionate administrative burden can have a real economic impact. Generally speaking, it is considered to be an irritating and disturbing element in business and is often cited as a priority objective of simplification efforts. The aim of the Financial Administration reforms is to use electronic services to the widest extent possible as it will decrease the amount of red tape placed upon tax subjects and streamline the functioning of the Financial Administration. The aim of electronic services is to introduce such information and communication technologies to secure paperless communication and automated processes first within the Financial Administration and later in relation to the tax subjects. The reform is based on the vision of the eGovernment from 2013, the aim of which is to achieve citizens' satisfaction with the public administration by providing services in an attractive and simple way, while increasing its efficiency, competence and reducing the costs of public administration. The implementation of the national project Electronic Services of Financial Administration – Taxes was officially completed on 21 October 2016. The project met two main goals. The first was to build a new internal financial reporting system for the Financial Administration, section taxes. This streamlined and partially restructured internal management processes. Full computerization and unification of these processes were necessary steps towards the second objective of the project - more effective communication with the public. In view of the above, this contribution also addresses the perception of the electronic services of the Financial Administration by students, clerks and entrepreneurs. The analysis of responses of respondents in absolute numbers on the Likert scale is presented in Table 7.

Table 7. Absolute number for respondents' answers to the question on electronic services

	Observed table row variables: Employment(4) column variables : Electronisation/computerisation - greater user comfort(5)					Total
	1	2	3	4	5	
student	128	132	88	31	31	410
officer	78	101	73	101	109	462
entrepreneur	169	166	102	47	52	536
not mentioned	13	22	22	13	22	92
Total	388	421	285	192	214	1500

1 – absolutely dissatisfied, 2 – dissatisfied, 3 – I do not know, 4 – satisfied, 5 – absolutely satisfied

Source: Authors.

Based on the analysis, the application of the χ^2 test with a value of 146.753, and 12 degrees of freedom, it can be concluded that there is a significant relationship between the respondents' opinion on Electronisation/computerisation - greater user comfort and Employment ($p = 0.0001$) at the chosen significance level 5 %.

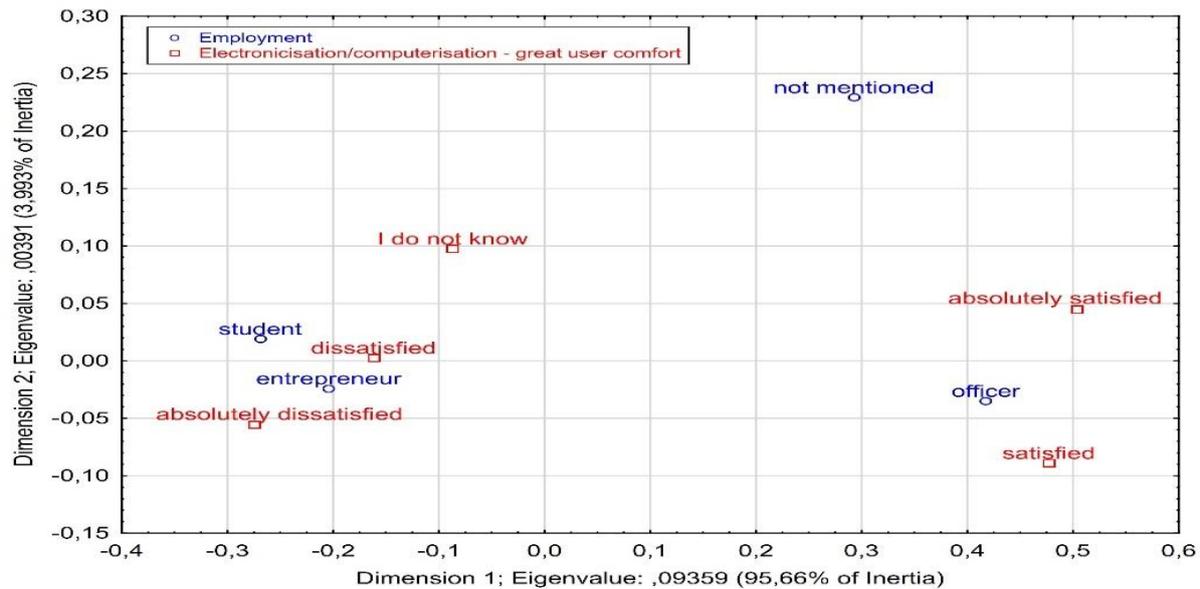


Figure 11. Correspondence map of Employment and Electronisation

Source: Authors.

From the correspondence map shown in Figure 11, which represents the relationship between Employment and Electronisation/computerisation - greater user comfort, it is clear that students and entrepreneurs are strongly inclined to disagree or strongly disagree, whereas clerks tend to agree or strongly agree with the opinion. Users of electronic financial management services, i.e. entrepreneurs and students, still perceive this system in a negative light. This negative attitude can be attributed to the frequent malfunctions and complexity of the entire electronic system, although it is necessary to say that, in view of the previous conclusions, these two groups perceive the process of electronisation very positively.

4 Conclusion

Slovakia, through the above mentioned process of tax reforms, is approaching what could be described as an effective tax system, one which will lead to an increase in the effectiveness and competitiveness of the state amongst other EU member states. The impact of the suggested changes can be divided into two main categories. The first category comprises the benefits of the reforms of the tax and customs administrations in terms of cost and time savings, growth of value added, efficiency of work, etc. The second category is represented by the expenditures used for the individual objectives of the reforms of the tax and customs administrations. Both of these categories can further be divided into the impact on the taxpayer, that is the client/user, and the impacts on the public administration. From the financial point of view, the greatest importance should be attached to those impacts of a permanent nature or that have a repeated effect [6, 28].

The research carried out and the subsequent processing of the data obtained in the form of factor analysis gave results similar to those of authors carrying out research in the field of social sciences. For example, research into activities for the unemployed using AZN methodology and factor analysis, identified 8 factors. Dobrovič et al. (2012) [1] used the method in the field of social sciences - the perception of security risks by citizens of a city - and outlined 11 factors. Dobrovič et al. [24] analysed 35 indicators, which gave rise to 6 factors. We note that the factor analysis carried out identified 5 new factors that were based on 12 indicators. These factors sufficiently reflect the views held about the Financial Administration reforms from the point of view of the main actors of these reforms, namely entrepreneurs and the Financial Administration. The analysis also included the third, less significant group represented by students. The analysis revealed different perceptions of key factors from the viewpoint of the three groups studied. However, these differences are particularly pronounced in the evaluation of electronisation, where similar opinions, i.e. dissatisfaction, are observed among students and entrepreneurs, while satisfaction was observed only in the group “clerks”.

When Slovakia joined the EU in May 2004, it had to align and continue to align its tax policy with the tax policy of the EU Member States in order to harmonize the Slovak tax system with EU legislation. In some areas, the EU has exclusive competence, which in practice means that all important decisions or important laws are adopted by the European institutions, namely the Commission or the Council or the European Parliament. By joining the EU, Slovakia was obliged to eliminate certain incompatibilities with the fundamental EU law and thus

to harmonize the tax system, value added tax, excise duties and tax on income (in particular for companies linked by common assets) with that of the EU. Had Slovakia failed to do so, the tax subjects concerned could sue it. It would also be sued by the European Commission for failing to implement the legal acts resulting from the founding treaties. The majority of Slovak legislation is based on so-called *acquis communautaire* of the European Union, which represents a set of common legal acts and obligations that have accumulated and been amended for over more than 50 years [since 1957 - The Treaty of Rome and the establishment of the European Economic Community (EEC) of six advanced Western European countries]. The EU Member States have some freedom in deciding to incorporate the *acquis communautaire* into their domestic law. For this reason, their impacts should be taken into account when implementing European legislation. The *acquis communautaire* is a set of rights, obligations, treaties, and is constantly expanding and developing. The latest developments in some EU Member States clearly show that the EU is going through very unfavorable economic developments, has no strong leaders, and that the issue of governance is raising a few eyebrows.

In connection with the process of European integration, tax harmonization primarily involves aligning Member States' legal and administrative regulations in order to prevent distortions in the common market. The aim of the effort is to remove existing tax boundaries within the EU. Tax harmonization can also be characterized as a process of convergence of the tax systems of the Member States on the basis of common rules. This contribution pointed out the difficulties of doing business based on certain factors of the Financial Administration in Slovakia. Therefore, it is necessary to consider that these confirmatory factors should be perceived as very serious for the collection of taxes and duties in Slovakia. The realization must come that unless the tax collection system is simplified, there will always be attempts to evade tax. The biggest shortcoming of the Financial Administration's system is its not very fortunate attempt at electrification. However, unless we align our VAT with the EU or abolish it altogether in favour of a Turnover Tax, there will continue to be tax evasion, which will become increasingly sophisticated over time. That is why it is necessary to focus more on the following factors: Competence and Administrative difficulty; Tax collection; Time savings and Postage costs; Collection of levies; and Collection of tariffs, as well as diplomacy when negotiating with the EU countries on the terms for the reciprocal exchange of information. Alternatively, Slovakia should strive to revive 2009's negotiations on the abolition of Value Added Tax and the introduction of a Turnover Tax, but, above all, enforce the EU legislation applicable to tax subjects in the country where the tax base was created, which means eliminating the possibility of taxing tax subjects in the state they prefer.

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