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Tax Responsibility Project – Towards Civic Responsibility and Responsible Taxes



Tax Morale in the Republic of North Macedonia

Taxpayers Profile

CENTER FOR ECONOMIC ANALYSIS (CEA)

Tax Responsibility Project – Towards Civic Responsibility and Responsible Taxes

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Contents

Introduction	4
Cluster 1: Link between taxpayers' gender and their tax behavior	6
Gender differences and their tax behavior in North Macedonia	10
Cluster 2. Link between taxpayers' age and their tax behavior	12
Tax behavior differences across age groups in North Macedonia	18
Cluster 3. Link between ethnic groups and taxpayers' behavior	19
Difference between ethnic groups and tax behavior in North Macedonia	26
Cluster 4. Link between taxpayers' level of education and their tax behavior	27
Difference between the level of education and tax behavior in North Macedonia	34
Cluster 5. Link between taxpayers' average monthly income and tax behavior	36
Difference between the level of monthly income and tax behavior in North Macedonia	43
Conclusions	45

Introduction

In many countries, an increase in tax revenues requires an effective and efficient tax system. There exist standard and non-standard measures for increasing tax revenues, however the standard measures for improving tax compliance and tax morale, such as legislative and administrative reforms, are not always sufficient. Standard measures can also be time-limited, technologically unacceptable, resources-limited, or politically restrained.

The non-standard measures, on the other hand, rely on a fundamental understanding of human behavior and the individuals' interaction between public policies and programs, with the sole purpose of providing creative and effective solutions for tax compliance. In addition to that, greater awareness of citizens for tax payment is required for establishing a better tax collection in North Macedonia.

Based on the research by Martinez-Vazquez and Schneider (2004)¹, tax laws can be applied only if there is preparedness by the citizens to abide by the regulations, even in cases when some groups of citizens deny paying taxes. There are varying opinions and empirical research about the impact of the sociodemographic and socioeconomic variables related tax morale, tax compliance and taxpayers' behavior.

This particular document covers five clusters that take into consideration the connection between tax compliance and sex, age and ethnicity as part of the sociodemographic factors, as well as education and taxpayers' personal income as part of the socioeconomic factors. One of the basic questions we would like to provide an answer to is the extent to which sex, age, education and personal income impact the tax behavior of individual taxpayers in North Macedonia. We would also like to identify the behavioral features that would be beneficial to communicate and resume an approach to increasing tax compliance, with the ultimate goal of increasing tax collection by using non-standard approach, as well as improving the overall taxpayers' morale.

The approach and the methodology which were used for this analysis are comprised of collection and analysis of 1) secondary and 2) primary data, through desk research and survey data.

The desk research was conducted by using literature on behavioral approaches about tax policies and their impact on tax morale, but other research sources from other countries and regions were used, as well, in the attempt to identify the sociodemographic and economic factors that impact citizens' tax morale.

¹ Alm, J. Martinez-Vazquez and F. Schneider (2004) "Sizing' The Problem of the Hard-to-Tax', Contributions to Economic Analysis 268: 11-75.

Primary data was gathered from field surveys on a representative sample comprised of heterogenous population by using a multi-staged random sample of 1.000 respondents.

Cluster 1: Link between taxpayers' gender and their tax behavior

Research and experiences

According to Schuetze (2002), gender is a sociological aspect which impacts the behavior of individual taxpayers. A significant number of studies have established that the level of tax compliance between men and women varies, and while certain studies have pointed to a higher level of tax compliance among men, others have proven that tax compliance is higher among women. Studies have shown that there are differences between men and women regarding the level of tax compliance (Friedland, Maital, & Rutenberg, 1978); (Cadsby, Maynes, & Trivedi, 2006); (Alm, Cherry, Jones, & Mckee, 2010))². For example, Spicer and Hero (1985) have identified in a lab experiment that women are more willing to pay their taxes compared to men. However, there are other contrasting findings: „*women are more likely to avoid paying taxes compared to men, and they also underreport their incomes when compared to men*“ (Friedland, Maital, & Rutenberg, (1978)). Bordignon (1993) stresses that men as taxpayers are more willing to take risks compared to women, which provides an explanation as to why men are less compliant than women. Contrary to that, female taxpayers in Uganda are more tax compliant compared to men. This is mainly due to the fact that women tend to be more concerned compared to men, since women in Uganda consider the income from their business activities as a major source of subsistence and perceive tax payment as a factor which ensures continuity in their work (Warui and Utai, 2019).³

For a higher level of tax compliance, the tax authorities in Kosovo and Malesia have traditional methods of motivating their taxpayers to pay taxes by sending them “*threatening*” letters, as well as by pressing criminal charges (Shanmugam, 2004),⁴ and on the other hand, they apply less communication activities which would otherwise help them to come up with a harmonized solution (Yong, 2005).⁵ These strategies are considered as more adequate in dealing with an intended tax non-compliance, however there may be other factors that contribute to (non-)compliance and prove the strategies as inadequate.

² Friedland, N., Maital, S., & Rutenberg, A. (1978). A simulation study of income tax evasion. *Journal of Public Economics*, 10(1), 107-116.

³ http://hrmars.com/hrmars_papers/the-influence-of-demographic-factors-on-tax-payercompliance-in-uganda.pdf

⁴ Shanmugam, S. (2004). Enforcing tax compliance: Relevant issues for criminal prosecution. *Tax Nasional*, First Quarter, 17–19.

⁵ Yong, K. (2005). Malaysia's first year self-assessment year for individual taxpayers. *Tax Nasional*, Second Quarter, 22–24.

In the past, some of the major contributing factors for tax compliance were analyzed, such as high tax rates, the probability of being caught for tax evasion, the complexity of laws and methods used for tax collection etc. (Clotfelter, 1983; Kasipillai, 1997).⁶ Jackson and Milliron (1986)⁷ have found in their research that gender also plays a significant role in tax compliance and tax behavior. Although both methods are designed to improve tax compliance, the latest studies have revealed that female taxpayers are more willing to pay their taxes when they get reprimanded for being irresponsible, instead of being threatened by sanctions (Jackson & Jaouen, 1989; Hite, 1997).⁸ These findings show that female taxpayers are more responsible when it comes to paying taxes. At a regional level, in Kosovo in particular, research was conducted and it has revealed that the percentage of male taxpayers who have paid their taxes after the expiry of the deadline is higher compared to women. In other words, compared to men, women have demonstrated a higher level of tax compliance when it comes to paying their taxes on time.⁹

The findings of North Macedonia so far have differed from the findings of European countries in other studies. The available studies that reflect on the tax morale in the Republic of North Macedonia, compared to other European countries, argue that non-demographic factors impact tax morale more than the demographic ones, in addition to age and income, but not including gender and marital status.¹⁰

For these reasons, we will try to describe the differences that can be taken into consideration in adopting policies for identifying the groups which require additional attention for increasing tax compliance. Namely, we will try to identify whether there are differences between men and women in North Macedonia regarding their tax behavior and the level of differences and their impact on the individual tax morale.

⁶ Clotfelter, C. T. (1983). Tax evasion and tax rates: An analysis of individual returns. *Review of Economics and Statistics*, 65(3), 363–373. ⁷ Jackson, B. R., & Milliron, V. C. (1986). Tax compliance research: Findings, problems, and prospects. *Journal of Accounting Literature*, 5, 125–165.

⁸ Jackson, B. R., & Jaouen, P. R. (1989). Influencing taxpayer compliance through sanction threat or appeals to conscience. *Advances in Taxation*, 2, 31–147.

⁹ <http://documents.worldbank.org/curated/en/747661551725011887/pdf/135032-WP-PUBLIC-Kosovo-Tax-Compliance.pdf>

¹⁰ M. Ristovska, N. M. Blazevski, M. Nikolov. 2013). An alternative view to the tax evasion: The effect of tax morale on paying taxes in Macedonia and EU countries

An overview of different views on how informed taxpayers are about tax system and tax morale in RNM based on their gender

	<i>Men</i>	<i>Women</i>
Familiarity with and significance of tax system	<p>Men consider themselves as being more informed about taxes collected at central and local level.</p> <p>The ability to identify taxes by levels of management, and also familiarity with tax payment are more prevalent among men. Male tax payers consider tax payment procedures as relatively simple.</p>	<p>Women consider themselves as being less informed about taxes collected at central and local level.</p> <p>The degree to which they are familiar is linked to the low level of experience with various tax payments. Women are less experienced with paying personal income tax compared to men. Simultaneously, they think that the procedure for paying personal income tax, property tax, real estate transfer tax and gift and inheritance tax is not simple.</p>
	<p>Most of those who consider themselves as the least informed or completely uninformed are men coming from urban areas.</p>	<p>Most of the female respondents who are uninformed come from the rural areas.</p>
Attitudes towards tax system	<p>Regardless of the taxpayers' gender, 6 out of 10 taxpayers consider the central tax payment system as clear, while 4 out of 10 taxpayers either consider the system as unclear or have failed to provide clear opinions.</p>	
	<p>Regarding the experience and the procedure for paying various taxes, the general opinion among the taxpayers is that it is simple, i.e. the procedure for paying taxes such as personal income tax and property tax is simple for those taxpayers who have at least high school degree or university degree.</p> <p>On the average, twice as more male taxpayers with a high school degree, university degree or MA and PhD degree think that the tax payment procedure is simple compared against female taxpayers with the same level of education.</p>	

	<i>Men</i>	<i>Women</i>
	Regardless of the taxpayers' gender, a majority of them think that tax rate should be reduced, especially when it comes to personal income tax, and over 50% think that tax avoidance is a misuse that has to be sanctioned.	
	5 out of 10 male taxpayers think that the tax system in the Republic of North Macedonia is highly unfair.	4 out of 10 female taxpayers think that the tax system is unfair and that they are relatively satisfied with the democratic system in the country.
Attitudes towards tax system	4 out of 10 taxpayers would not mind purchasing goods and services on the grey market which are not subject to taxation.	5 out of 10 taxpayers would not mind purchasing goods and services on the grey market which are not subject to taxation.
	The number of those who think that avoiding taxes is unacceptable is lower in case when sanctions are lenient. In case of a chance for tax fraud, the number of those who think that tax fraud is unacceptable is lower.	They think more that tax avoidance is unacceptable if sanctions are lenient. They think more that tax fraud, if possible, is unacceptable.
	Regardless of the taxpayers' gender, 6 out of 10 individuals think that the level of corruption at municipal and central level has remained unaltered or has gone even higher compared to the past period and that is why they do not trust the authorities when spending tax revenues.	
	With higher tax rates, there is higher probability for better service.	With higher tax rates, it is no higher probability for better services.
Trust in the institutions	A majority of the tax payers, regardless of the gender, do not trust the central and the municipal authorities about spending tax revenues, and in addition to that, they also think that the revenues collected through donations by the local self-government are not well invested for the public services that they receive.	
	Regardless of the gender, 6 out of 10 individuals would like to pay lower taxes and live in RN Macedonia.	

Gender differences and their tax behavior in North Macedonia

Men in North Macedonia, compared to women, consider themselves as being more informed about taxes at both central and local level. On the other hand, women from urban areas are more informed compared to their male counterparts.

Regarding the perception about the central tax payment system and how clear it is, there are no differences between men and women. 6 out of 10 taxpayers consider the tax payment system at central level to be clear. Namely, compare to their female counterparts, the number of males with high school education, higher education and/or MA and PhD who think that the payment procedure is simple is twice as higher.

Regarding the justifying statements about tax avoidance, there are no significant differences between men and women. Over 50% of the respondents think that the tax avoidance is a misuse and has to be adequately sanctioned. Simultaneously, the perception about the level of corruption among local and central authorities is that it has remained unaltered or has even deteriorated, with no particular differences between men and women.

On the other hand, compared to their male counterparts, women tend to think more that tax avoidance is unacceptable if sanctions are lenient and they also think that tax fraud is unacceptable, which may indicate to a rather higher tax morale among women compared to that among men.

There are differences between men and women regarding the attitudes towards increasing the tax rates with the purpose of receiving better public services. Male taxpayers think that, in case when higher taxes are paid, the probability of receiving better services would be higher, unlike their female counterparts who think that an increase in tax rates would not bring them better services. It all indicates to potential differences in the level of trust in the public sector and effective spending of public money.

Although there are no greater differences between men and women regarding tax morale and tax behavior, the statements indicate that, unlike men, female taxpayers in RNM appear to be more disciplined when it comes to tax compliance. Since men are being better informed about taxes, as a result of it, they have better understanding of the national tax system and believe that the tax system is unfair. This, in turn, makes them more prepared to take risks unlike women. Just as Bordignon (1993) explained in his work that male tax payers are more prepared to take risks compared to women, it can provide an explanation as to why men are less disciplined when it comes to tax compliance compared to women.

Greater tax discipline for tax compliance can partially be assigned to the gender gap on the labor market. Compared to the highly developed European countries, the Republic of North Macedonia still marks a significant gender inequality and a gap between men and women on the labor market. Men participate with 59,9% on the labor market, compared to women who are represented by 40,1% on the labor market as employed. Regarding the inactive population, 37,7% are men and 62,3% are women (2019).¹¹

In addition to that, the pay gap between men and women is 12%. Hence women, in addition to being less active on the labor market, also fear the risk of losing their jobs or failing to find a job. All those factors can contribute to women's fears of being tax non-compliant, which in turn leads to greater discipline, better compliance and higher tax morale.

¹¹ http://www.stat.gov.mk/pdf/2020/2_1.20.06_mk.pdf

¹² Finance Think, Policy briefing 15. Gender pay gap has negative effects on economic growth

Cluster 2. Link between taxpayers' age and their tax behavior

Research and experiences

Most of the studies conducted in the USA have demonstrated that age is a significant factor in explaining the level of tax (non)compliance. Having more senior taxpayers can influence positively the national tax system when it comes to their contribution towards the overall level of tax compliance in a given country. Some of the research has revealed that the age of the taxpayers positive correlation with the level of tax compliance (Clofter, 1983);¹³ (Kirchler E., 1999);¹⁴ (Fjeldstad & Semboja, 2001);¹⁵ (Alm, Cherry, Jones, & Mckee, 2010).¹⁶ Clofter, (1983) has identified that taxpayers aged 65 and older are more tax compliant compared to more junior taxpayers. The senior taxpayers' stances about potential sanctions for tax non-compliance can make them be law-abiding to a greater degree. (Chang, Nichols, & Schultz, 1987).¹⁷ As they get older, taxpayers have a greater need for public goods and services, such as social insurance and healthcare protection. This may be a reason why senior taxpayers value tax benefits more than the young ones (Kirchler, 2007).¹⁸

In RN Macedonia, individuals over 65 have demonstrated a higher level of tax morale based on the statements they have provided, based on which they do not justify tax avoidance. Those taxpayers are mainly pension beneficiaries, and in addition to that, they have also accumulated certain capital over time, which increases the risk of losing it due to tax non-compliance. Therefore, a conclusion can be drawn that the motive for tax compliance with the purpose of reducing the level of risk is higher among the senior taxpayers. However, senior individuals in North Macedonia have stated that they often purchase goods on the grey market, where no VAT is paid and prices are, therefore, lower. This is mainly due to low pension income which motivate the taxpayers to purchase goods and services on the grey market.

¹³ Clofter, C. T. (1983). Tax Evasion and Tax Rates: An analysis of individual returns. *The Review of Economics and Statistics*, 65(3), 363-373

¹⁴ Kirchler, E. (1999). Reactance to taxation: Employers attitude towards taxes. *Journal of Socio-Economics*, 28(2), 131-138

¹⁵ Fjeldstad, O. H., & Semboja, J. (2001). Why people pay taxes: the case of the development levy in Tanzania. *World Development*

¹⁶ Alm, J., Cherry, T., Jones, M., & Mckee, M. (2010). Taxpayer information assistance services and tax compliance behaviour. *Journal of Economic Psychology*, 31, 577-586

¹⁷ Chang, O. H., Nichols, D. R., & Schultz, J. J. (1987). Taxpayers attitudes toward tax audit risk. *Journal of Economic Psychology*, 8(3), 299-309.

¹⁸ Kirchler, E. (2007). *The economic psychology of tax behaviour*. Cambridge: Cambridge University Press.

Socializing of senior generations differs from that of the junior generations and their social values and attitudes towards the state and the taxes may differ depending on the age. Therefore, senior citizens may appreciate tax benefits more than the younger generations. In addition to that, senior individuals may be in a better financial condition compared to the young ones (Riley, Foner, & Warner, 1988).¹⁹ Social psychologists think that the senior individuals have over the time obtained more property and social status, and are therefore more sensitive to other people's response, which in turn has a positive effect on tax morale (Togler, Benno, 2007²⁰). In most of the assessments, seniority has significant positive links to tax morale and tax compliance.

On the other hand, Wallschutzky's study (1984)²¹ has revealed that senior tax payers have a greater share in tax evasion in Australia compared to the junior ones. In Western Europe and North America there is a strong link between the age, the tax compliance and the tax behavior of individual taxpayers, which points to the fact that there are differences between the age categories of tax payers and their attitude and behavior towards tax obligations.²²

Studies about Uganda have revealed that age does not play a role in tax compliance and tax behavior of individual taxpayers (Warui and Otai, 2019)²³, while in Nigeria the situation differs and senior taxpayers are more tax compliant with the tax authorities (James O Alabede, 2014)²⁴

When it comes to the Republic of North Macedonia, we will try to establish whether age affects tax compliance of certain age groups of taxpayers and what are the attitudes that impact the tax morale of both senior and junior taxpayers.

¹⁹ Riley, M. & Foner, A., Warner, J. (1988). Sociology of age. In N.J. Smelser (Ed.), *Handbook of sociology* (S.243–290). Newbury Park: Sage. ²⁰ Benno Torgler, (2007). *Tax Compliance and Tax Morale: A Theoretical and Empirical Analysis*, Benno Torgler, 2007, Edward Elgar Publishing limited, UK

²¹ Wallshutzky, I. G. (1984). Possible causes of tax evasion. *Journal of Economic Psychology*, 5(1), 371-384.

²² E. Hofmann, M. Voracek, C. Bock, Erich Kirchler, 2017. Tax compliance across sociodemographic categories: Meta-analyses of survey studies in 111 countries

²³ http://hrmars.com/hrmars_papers/the-influence-of-demographic-factors-on-tax-payercompliance-in-uganda.pdf

²⁴ James O Alabede, (2014). *An Exploratory Analysis of Individual Taxpayers' Compliance Behaviour in Nigeria: a Study of Demographic Differences and Impact*

An overview of taxpayers' different opinions about the degree of familiarity with the tax system and tax morale in RNM across age categories

	<i>Aged 18-24</i>	<i>Aged 25-34</i>	<i>Aged 35-44</i>	<i>Aged 45-54</i>	<i>Aged 55-64</i>	<i>Over 65</i>
Degree of familiarity and significance of tax system	Taxpayers from RO Bitola and RO Skopje are in the group of the least informed citizens.	Taxpayers from RO Tetovo are among the least informed.	Compared to other age categories, these taxpayers consider themselves as more informed about collection of taxes at local and central level. Taxpayers from RO Shtip are among the most informed citizens, while those from RO Skopje are among the least informed.	Taxpayers from RO Strumica are the most informed compared to other regional offices.	Taxpayers from RO Bitola and RO Skopje are among the most informed compared to other regional offices.	Taxpayers from RO Prilep and RO Skopje are the least informed compared to their counterparts in other regional offices.
Attitude towards tax system	Regardless of the taxpayers' age category, 6 out of 10 taxpayers consider the central tax payment system as being clear, while 4 out of 10 taxpayers consider it as unclear or did not know the answer.					

	<i>Aged 18-24</i>	<i>Aged 25-34</i>	<i>Aged 35-44</i>	<i>Aged 45-54</i>	<i>Aged 55-64</i>	<i>Over 65</i>
	6 out of 10 taxpayers consider the central and local tax payment system as unclear.	Local tax payment system is twice as clear to this category compared to those aged 18-24.	Taxpayer who fall under this category are among the most informed and familiar about local tax payment compared to all the other categories.	7 out of 10 taxpayers consider the local tax payment system as clear, which makes it the most numerous category.	Central tax payment system is three times as clear to this age category compared to those aged 18-24.	Compared to other age categories, they are the least informed about the central payment system.
<p>Generally speaking, based on the experience and the procedures for payment of various taxes, real estate transfer tax is a tax the respondents are the least familiar with, while property tax is the tax they are the most familiar with.</p> <p>Based on the age category and the employment status (employed), taxpayers aged 35-44 are the least familiar with paying any type of taxes, and they are twice as less experienced compared to those aged 55-64 and six times less experienced compared to the taxpayers aged 18-24.</p>						
	They are the least experienced with paying personal income tax compared to other age categories.	They are the least experienced with paying real estate transfer tax and inheritance tax.	They are the most experienced with personal income tax compared to other age categories.	These taxpayers are the most experienced with paying taxes such as property tax and inheritance tax compared to other age categories.	They are mostly experienced with property tax.	The least experienced with personal income tax and real estate transfer tax.

	<i>Aged 18-24</i>	<i>Aged 25-34</i>	<i>Aged 35-44</i>	<i>Aged 45-54</i>	<i>Aged 55-64</i>	<i>Over 65</i>
	Regardless of the age category, a majority of the taxpayers, that is 6 out of 10, think that the tax rate should be reduced and it mostly refers to value added tax.					
	Taxpayers think that VAT rate should be reduced.	6 out of 10 taxpayers think that the VAT rate should be reduced.	Compared to other age categories, a majority of this category think that the tax rates should be reduced.	Compared to other age categories, a majority in this category think that the personal income tax and VAT rates should remain unaltered.	None of the respondents think that the VAT and inheritance tax rate should be raised.	None of the respondents think that the real estate transfer tax, property tax and inheritance tax should be increased.
	Regardless of the age category, 7 out of 10 taxpayers think that the tax system in the country is unfair, with taxpayers aged over 65, followed by those aged 18-24 outnumbering other categories.					
Attitude towards tax morale	7 out of 10 taxpayers in this age category avoid purchasing goods and services on the grey market which are not subject to taxation.	6 out of 10 taxpayers do not avoid purchasing goods and services on the grey market which are not subject to taxation.			7 out of 10 taxpayers do not avoid purchasing goods and services on the grey market which are not subject to taxation.	

	<i>Aged 18-24</i>	<i>Aged 25-34</i>	<i>Aged 35-44</i>	<i>Aged 45-54</i>	<i>Aged 55-64</i>	<i>Over 65</i>
	<p>Taxpayers who think that the tax system in the country is unfair also think that the level of corruption at central level is higher compared to the past, and this opinion is mostly prevalent among the age category 35-44, which is three times as more numerous as taxpayers aged 18-24.</p> <p>On the other hand, taxpayers who consider the tax system as fair also think that the level of corruption at the central level has remained unaltered, and this opinion is most prevalent among 45-64 taxpayers, which is five times more than the number of taxpayers aged 18 -24 regarding the same opinion.</p>					
	<p>The average opinion of taxpayers aged 18-24 is that in case they were to pay higher taxes, it is relatively probable that they would get better quality services, unlike other age categories which have no expectations about better services by paying higher taxes, which corresponds to the perception about the fairness of the tax system and the level of corruption.</p>					
Trust in the institutions	<p>Regardless of the age group, 6 out of 10 individuals completely distrust or somewhat distrust the local and central authorities in spending tax revenues.</p> <p>7 out of 10 individuals over 65 stated that they completely distrust or somewhat distrust both the local and central institutions when it comes to spending tax revenues.</p>					
	7 out of 10 individuals would rather pay higher taxes and live abroad.	6 out of 10 individuals would rather pay higher taxes and live abroad.	50% of the individuals would rather pay higher taxes and live in North Macedonia.	6 out of 10 persons would rather pay lower taxes and live in Macedonia.	Tax payers over 55 would rather pay lower taxes and live in North Macedonia.	

Tax behavior differences across age groups in North Macedonia

Taxpayers aged 35-44 are among the most informed citizens when it comes to various taxes collected at local and central level compared to other age categories.

The difference in the level of being informed is present among the more senior categories and depending on the regions (regional offices - RO). In RO Shtip, taxpayers aged 35-44 are among the most informed, while in RO Skopje this age category is among the least informed. Individuals over 65 coming from RO Prilep and RO Skopje are the least informed compared to other regional offices.

6 out of 10 persons aged 18-24 consider the central and local tax collection system as unclear, while a majority of those over 65 consider only the central tax collection system as unclear. Therefore, the two borderline categories, i.e. the most junior and the most senior taxpayers in RN Macedonia are facing the greatest difficulties about the operation of the tax system both at central and local level.

Based on the experience taxpayers have shared about the payment procedure for various taxes, regardless of the age category, the respondents have stated that they are the least experienced with real estate transfer tax and, on the other hand, they are the most experienced with property tax.

There are huge gaps between individuals' employment status and their age. Persons aged 35-44 are the least familiar with paying any type of a tax, and in addition to that, they are twice as less familiar compared to persons aged 55-64 and six times less familiar compared to those aged 18-24.

One of the ways for avoiding paying value added tax is purchasing goods and services on the grey market. Therefore, compared to other age categories, 7 out of 10 individuals older than 24 do not avoid purchasing goods and services on the grey market which are not subject to taxation. Taxpayers in RNM who think that the tax system in the country is unfair, also think that the level of corruption at central level is higher compared to the past period, and this opinion is most prevalent among those aged 35 -44, which is three times more prevalent than the opinion of those aged 18 - 24.

The data about the constant increase of emigration of young people out of the country is also confirmed by their statements. Namely, 7 out of 10 individuals aged 18 - 24 would rather pay higher taxes and live abroad, while senior generations would rather pay lower taxes and live in North Macedonia.

Citizens younger than 40 prefer to leave the country and pay higher taxes somewhere else. On the other hand, those citizens over 40 prefer paying lower taxes and staying to live in North Macedonia. It all indicated to the resignation, as well as to the fact that those individuals are satisfied with the living conditions in North Macedonia. Even in such conditions in North Macedonia, they prefer not paying higher taxes and, in turn, receiving better services, since they have no expectations whatsoever that higher taxes would bring them better public services. On the contrary, they believe that the revenues will be spent unevenly.

Cluster 3. Link between ethnic groups and taxpayers' behavior

Research and experiences

Ethnic fragmentation may impact the process of efficient public service delivery. Alesina et al. (1999)²⁵ have presented a model which links the preference heterogeneity among ethnic groups in a certain area with the efficient public service delivery by the local authorities. The results have demonstrated that the share of spending on productive public goods (eg. education, roads, sewerage and solid waste management in the US cities) is inversely linked to the ethnic fragmentation in a given city. Provision of public goods is less efficient in areas with ethnic fragmentation, and in addition to that, fiscal discipline is also arguable.

The mechanisms of the impact of ethnic fragmentation on the efficient public service delivery can be examined through the heterogeneity of the preferences, as well as the interest of various groups and literature about social capital. When it comes to the preference heterogeneity, public policy and ethnic origin are strongly linked and political conflicts about public policies are fought along the ethnicity lines. If all the ethnic groups are dissatisfied, it can serve as a good indicator about the polarization of these groups, which have already found themselves in an unfavorable position (Alesina et al. 1999)²⁶. The result of it all is that municipalities with high level of ethnic fragmentation have a low level of efficiency in public service delivery (Nikolov 2013)²⁷. For example, every ethnic group may have different travel preferences, and therefore, there may appear polarized preferences about the priorities of constructing local roads. This literature is basically compatible with the Tibeout (1956)²⁸ preference model, and he further claims that citizens will be divided about priorities based on their preferences. Hence, the more diverse the population is regarding ethnic characteristic, the greater the probability is that the needs and the tastes about various public services will differ (Paddison 1983)²⁹.

In addition to that, ethnic groups may favorize spending programs through loans, which are in line exclusively with the interests of one particular ethnic group, thus undervaluing the public goods which are beneficial for the entire community. While most of the relevant literature from the past was focused on the impact of diversities on the economic growth, there is evidence that the diversities have a negative impact on the distribution of revenues, the level of poverty, as well as on human development

²⁵ Alesina, A, Baquir. R. and EASTERLY W. (1999): "Public goods and Ethnic Division," in e-Library World Bank Policy Research Working Paper Series 2108, retrieved July 27, 2005, from <http://elibrary.worldbank.org/content/workingpaper/10.1596/1813-9450-2108>

²⁶ Ibid

²⁷ Nikolov M. (2013): "Cost efficiency of municipalities: Does ethnic fragmentation matter?" Book: ISBN-13: 978-961-6842-16-7, DOI: 10.4335/978.961.6842.16.7(2013); <http://www.lex-localis.com/index.php/LexLocalisPress/catalog/book/1>.

²⁸ TIEBOUT C. (1956): "A Pure Theory of Local Expenditure," *Journal of Political Economy*. Vol. 64, No. 5 (pp. 416-424)

²⁹ PADDISON R. (1983): "The fragmented state: The political geography of power," *Blackwell*.

(Ranis 2011)³⁰. In addition to that, polarized groups cannot agree upon the type and the method of costs distribution due to the fiscal policy with a lenient fiscal discipline. Since its independence, the Republic of North Macedonia has always had one political party from the Albanian ethnic group in the government coalition which has shared the power with a Macedonian political party. This can have a negative effect on the efficiency of public service delivery. In the states where the ethnic groups are polarized and where the electorate and the members come from an ethnic group, the share of investments on productive public goods which are a priority is very low (Habyariama et al. 2007)³¹.

This is very important in the case of North Macedonia, where the political parties and electorate are fragmented and go along the demographic frictions of ethnicity. Uninformed voters, as well as polarized voters are less capable of making the politicians be accountable in their work. In such conditions, what is the most at stake is the provision of public goods, since the politicians in polarized societies seldom internalize their expenditures and benefits at a municipal level for all the citizens (Ahmad and Brosio 2004). Therefore, it is important to reflect upon the ethnic fragmentation as a determinant of the fiscal aspect and the efficiency of the local public goods and services.

The social capital literature is mainly based on Putnam's (1993)³² and North's (1990)³³ work and the structural social capital is explained as the networking, communication, trust and culturological and linguistic differences which may affect the delivery of public services (World Bank 2002)³⁴. Putnam (1993) has pointed to the differences in the efficiency of the regional authorities in Italy - the authorities in the North are more efficient compared to those in the South - the result being a mismatch in the level of social capital in the two parts of the country.

Xin Li S (2010) has researched the relation between the social identity, the ethnic fragmentation and the tax morale. He has studied two measures of social identity: (1) identity based on the externally visible ethnic, linguistic and religious characteristics and (2) internalized identity based on the self-reported feeling of ethnicity. He has found that the two identity dimensions affect the tax morale of the people and the effects differ depending on the level of ethnic fragmentation in the society. These findings are correlated with the evidence about the aggregate level of detrimental effect of ethnic fragmentation on the tax morale. The results have indicated that ethnically heterogenous states may face higher tax rates compared to the homogenous states, which imposes limitations on their performance in the public sector.³⁵

³⁰ Ranis G. (2011): "*Diversity of communities and economic development*," Yale University, Economics Department Working Paper No. 93 retrieved October 23, 2011, from: <http://ssrn.com/abstract=1924528>

³¹ Habyarimana J. and Humphreys M. and Posner D. and Weinstein J. (2007): "Why does ethnic diversity undermine public good provision?" *American Political Science Review*, Vol. 101. No. 4 pp. 709-725

³² Putnam R. (1993): "*Making democracy work: Civic traditions in modern Italy*, Princeton: Princeton University Press

³³ North D. (1990): "*Institutions, Institutional Change and Economic Performance*," Cambridge University Press

³⁴ WORLD BANK (2002): "*Understanding and measuring social capital: A multidisciplinary tool for practitioners*," (eds.) Grootaert C., Van Bastelaer T., ISBN: 978-0-8213-5068-3; SKU: 15068

Tusicisny (2014) claims that the justification for tax evasion is more prevalent among the distrustful ethnic minorities and, in this segment, it increases simultaneously with the ethnic fractioning. Both general trust and the trust in the political institutions increases the tax morale among the minor ethnic groups in ethnically fragmented country. Greater political trust is linked to the additional increase in the level of tax morale among other groups, as well.

Provided that better dissemination of information improves the tax compliance among other ethnic groups, the governments of multiethnic states can increase their tax revenues by simply relying on people's natural tendency for mutual cooperation, Tusicisny (2014). Fair and efficient judicial system may increase people's morale via two different channels: by increasing their trust in the political institutions and increasing the trust in its citizens, regardless of the ethnic differences.³⁶

According to Steinmo (2018³⁷), where there is a feeling of unity and belonging, a society with a common objective may be created. Cohesion is certainly a social construct and it does not equal homogeneity. For example, the USA has since its early days been a diverse country with immigrants from all over the globe and the analysis of Carolyn Johnson has demonstrated that the country has managed to create a feeling of identity and mutual goals in the middle of the 20th century. There are no naturally inherited features which make a single country more cohesive than another one. The social cohesion may arise from sharing a mutual objective, mutual believes and/or religion, mutually accepted norms or external threats. The lack of social cohesion in the narrative of the Macedonian society is mainly based on the differences between the ethnic and religious groups and it thrives on. Therefore, it also becomes apparent in the survey results among various ethnic groups, where there are differences in the level of institutional trust and tax morale, as seen through their attitudes towards paying taxes.

³⁵ <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.319.6814&rep=rep1&type=pdf>

³⁶ https://cadmus.eui.eu/bitstream/handle/1814/31613/MWP_WP_Tusicisny_2014_09.pdf?sequence=1

³⁷ The Leap of Faith, The Fiscal Foundations of Successful Government in Europe and America, Sven H. Steinmo, Oxford Scholarship Online, 2018

An overview of the differences in familiarity of taxpayers with the tax system and tax morale in RNM by ethnic groups

	<i>Macedonian</i>	<i>Albanian</i>	<i>Other</i>
Familiarity and meaning of tax system	The most informed group about central and local tax collection.	5 out of 10 individuals are uninformed about central and local tax collection.	The least informed group when it comes to central and local tax collection.
Attitude towards tax system	Regardless of the taxpayers' ethnic group, 6 out of 10 taxpayers find the central tax collection system clear, while 4 out of 10 taxpayers think that the system is not clear or do not have a clear answer. Macedonians are the most numerous ones when it comes to finding the central tax collection system clear and comprehensible, while the Albanians are the most numerous group of citizens who find the system for collection of local taxes comprehensible.		
	In their own subgroup, they are mostly experienced with paying property tax, and the least experienced with real estate transfer tax.	In their own subgroup, they are the most experienced with paying personal income tax, and the least experienced with paying real estate transfer tax.	They are the most experienced with paying property tax and the least experienced with real estate transfer tax and inheritance tax. The least experienced group of citizens with paying any type of tax compared to other ethnic groups.
	Regardless of the ethnic category, most of the taxpayers, i.e. 6 out of 10 consider that the tax rate is high and should be reduced, primarily concerning the value added tax.		
	6 out of 10 taxpayers think that the rate of all the taxes is high and should be reduced.	Compared to other ethnic groups, most of the taxpayers in this ethnic group think that the rate of all the taxes is high and should be reduced.	7 out of 10 taxpayers think that the value added and property tax rates should be reduced,

	<i>Macedonian</i>	<i>Albanian</i>	<i>Other</i>
	3 out of 10 individuals think that the rates for personal income tax, inheritance tax and value added tax should remain unaltered.	8 out of 10 individuals think that the personal income tax rate should be reduced.	5 out of 10 individuals in this group think that the rates of other taxes should also be reduced.
	4 out of 10 taxpayers think that the tax system in the country is unfair.	5 out of 10 taxpayers think that the tax system is unfair.	5 out of 10 taxpayers think that the tax system in the country is unfair.
Attitude towards tax morale	<p>A majority of the taxpayers who fall under Macedonians and Others think that the level of corruption at both central and local level has remained unaltered compared to the period from 5 years ago.</p> <p>The taxpayers from the Albanian ethnic group think that the current level of corruption in the country is higher compared to the level from 5 years ago.</p>		
	5 out of 10 individuals avoid purchasing goods and services on the grey market which are not subject to taxation, while the rest of them either do not avoid or somewhat avoid it.	<p>3 out of 10 individuals avoid purchasing goods and services on the grey market, and the number of those who do not avoid it is identical.</p> <p>4 out of 10 individuals somewhat avoid purchasing goods and services on the grey market.</p>	
	6 out of 10 taxpayers think that it is little probable that they would get better services by paying higher taxes.		7 out of 10 taxpayers think that it is little probable that they would get better services by paying higher taxes.
Trust in the institutions	Regardless of the ethnicity, 6 out of 10 individuals stated that they completely distrust or somewhat distrust the local and central authorities about spending tax revenues.		

	<i>Macedonians</i>	<i>Albanians</i>	<i>Other</i>
	7 out of 10 persons who fall under Macedonians stated that they completely distrust or somewhat distrust the local and central authorities into spending tax revenues.		
	Regardless of their ethnicity, 6 out of 10 persons would rather pay low tax rates and live in North Macedonia.		
	4 out of 10 individuals would rather pay higher taxes and live abroad.	3 out of 10 persons would rather pay higher taxes and live abroad, while 7 out of 10 persons would rather pay lower taxes and live in North Macedonia.	4 out of 10 persons would rather pay higher taxes and live abroad.

Difference between ethnic groups and tax behavior in North Macedonia

According to the statements by the taxpayers who are divided across ethnic groups, the Macedonians are among the most informed citizens concerning the collection of both central and local taxes.

When it comes to the central tax collection system, the Macedonians are the ones who are the most acquainted with it and when it comes to the local tax collection system, it is the Albanians who are the most acquainted.

The Macedonians have stated that they are the most experienced when it comes to property tax, and the least experienced when it comes to real estate transfer tax. The Albanians, on the other hand, are the most experienced with personal income tax, and the least experienced with real estate transfer tax.

Regardless of the ethnic category, most of the taxpayers, i.e. 6 out of 10 think that the tax rates are high and should be reduced, and it mainly refers to the value added tax.

3 out of 10 persons from the Macedonian ethnic group think that the tax rate for personal income tax, inheritance tax and value added tax should remain unaltered, while 8 out of 10 persons from the Albanian ethnic group think that the personal income tax rate should be reduced.

A majority of the taxpayers among the Macedonians and Others, think that the level of corruption centrally and locally has remained unaltered compared to the period from 5 years ago.

Taxpayers from the Albanian ethnic group think that the level of corruption in the country is higher compared to the period 5 years ago.

5 out of 10 persons among the Macedonians avoid buying goods and services on the grey market which are not subject to taxation, while 3 out of 10 persons from the ethnic groups of Albanians and Others avoid purchasing on the grey market.

The taxpayers think that it is little probable to expect better services by paying higher taxes.

Regardless of the ethnicity, 6 out of 10 individuals stated that they completely distrust or somewhat distrust the local and central authorities into spending tax revenues, with the distrust being much more prevalent among the Macedonians compared to other ethnic groups.

7 out of 10 individuals from the Albanian ethnicity would rather pay lower taxes and live in North Macedonia, unlike 6 out of 10 Macedonians and Others who shared identical statements, which represents an insignificant difference.

Cluster 4. Link between taxpayers' level of education and their tax behavior

Research and experiences

Generally speaking, low level of literacy on finance, and particularly low level of knowledge about taxes, leads towards a limited understanding, as well as limited tax payment and it can also trigger further distrust and disrespect for the laws. Low level of education can be directly linked to the low level of tax compliance (Bobek et al., 2007).³⁸

Namely, the high level of tax system complexity may lead to a limited understanding of tax obligations and greater uncertainty among taxpayers (Kirchler, 2007).³⁹

Recent studies conducted in 111 countries worldwide have pointed to the existence of a minor, yet a rather significant link between taxpayers' education and their tax compliance. Taxpayers with higher education degree have a tendency to be less tax compliant compared to those with lower level of education. According to the analysis, persons with lower education have a tendency to be more tax compliant compared to those with higher education. Regarding the education, there is no significant difference across the regions, and the only country that deviates from the overall negative link between education and tax compliance is Oceania.⁴⁰

On the other hand, there are studies which point to the positive link between education and tax compliance (Bhatia, 1976)⁴¹, (Chan, Troutman, & O'Bryan, 2000)⁴², (Jackson & Milliron, 1986)⁴³, (Kirchler & Cambridge, 2007)⁴⁴, and (Niway, 2016)⁴⁵. They underline the fact that the level of education is directly linked to tax morale and tax behavior. Educated taxpayers are more susceptible to tax compliance compared to the less educated ones.

A research which was conducted in Australia has revealed that taxpayers with higher education have demonstrated a higher degree of tax compliance compared to those with lower education.

³⁸ Bobek, D. D., Roberts, R. W., & Sweeney, J. T. (2007). The social norms of tax compliance: Evidence from Australia, Singapore, and the United States. *Journal of Business Ethics*, 74, 49–64. <http://dx.doi.org/10.2307/25075443>.

³⁹ Kirchler, E. (2007). *The economic psychology of tax behavior*. Cambridge: Cambridge University Press.

⁴⁰ E. Hofmann, M. Voracek, C. Bock, Erich Kirchler, 2017. Tax compliance across sociodemographic categories: Meta-analyses of survey studies in 111 countries

⁴¹ Bhatia, H. L. (1976). *Public Finance* (19th edition ed.). New Delhi: Vikas Publishing House Pvt Ltd.

⁴² Chan, C. W., Troutman, C. T., & O'Bryan, D. (2000). An expected model of taxpayer compliance: Empirical evidence from the United States and Hong Kong, *Auditing and Taxation. Journal of International Accounting*, 83-103.

⁴³ Jackson, B. R., & Milliron, V. C. (1986). Tax Compliance Research: Findings, problems, and prospects. *Journal of Accounting Literature*, 5, 125-165.

⁴⁴ Kirchler, & Cambridge, E. (2007). *The Economic psychology tax behavior*.

⁴⁵ Niway, A. W. (2016). Determinant of voluntary compliance behavior evidence from SNNPR Ethiopia. *International Journal of Science and Research*, 5(12), 967 973.

The positive correlation between tax compliance and the level of education is assigned to the improved perception about tax fairness when the taxpayers are better educated and have the capacity to deal with the complex tax legislation (Dubin, Graetz, & Wilde, 1990);⁴⁶ (Saad, 2010)⁴⁷. On the other hand, taxpayers with higher education degree have the capacity to take advantage of the legal loopholes and reduce their tax obligations (Jackson & Milliron, 1986); (Dubin et al 1990).

Therefore, we are trying to establish the correlation between the taxpayers' level of education and their tax behavior, i.e. whether there are differences between those with higher and those with lower level of education in RNM and how that affects their tax compliance.

⁴⁶ Dubin, J. A., Graetz, M. J., & Wilde, L. L. (1990). The effect of audit rates on the federal individual income tax, 1977-1986. *National Tax Journal*, 43(4), 395-409.

⁴⁷ Saad, N. (2010). Services and tax compliance behaviour. *Journal of Economic Psychology*, 31, 577-586.

An overview of different opinions regarding the level of taxpayers' familiarity with the tax system and tax morale in RNM based on their level of education

	<i>No education/ Primary education</i>	<i>Secondary education (vocational or gymnasium)</i>	<i>Higher education/University</i>	<i>MA/PhD</i>
Level of familiarity and meaning of tax system	The least informed group about taxes at both local and central level, i.e. 7 out of 10 are uninformed.	4 out of 10 individuals are not sufficiently informed about taxes at local and central level and 4 out of 10 individuals are partially informed about taxes.	They are better informed about taxes collected at local level and less informed about taxes at central level.	The taxpayers are informed the most about taxes collected at both local and central level compared to individuals with lower level of education.
Opinions about tax system	Regardless of the level of taxpayers' education, 6 out of 10 taxpayers think that the central tax collection system is clear, while 4 out of 10 either find it unclear or have no precise answer.			
	8 out of 10 taxpayers with an MA or PhD find the central tax payment system clear, and when it comes to local taxes, 9 out of 10 individuals of the same category also think that the system is clear.			
	When it comes to the direct experience with various taxes, 3 out of 10 taxpayers have had an experience with paying personal income tax. This average differs across different groups by their level of education, i.e. 80% of the individuals with an MA or PhD degree and 40% of individuals with higher education have had direct experience. The average also depends on the employment status, i.e. 5 out of 10 employees have had an experience with direct payment of personal income tax, while the numbers among other subgroups are much lower. The low level of direct experience with paying taxes may also be due to the fact that the legal entity pays it directly on behalf of the employee (gross salary), i.e. it assesses and pays the tax on a particular allowance (part-time contract, employment, service). Half of the respondents have some experience with taxes, and they are the least experienced with real estate transfer tax.			
	The taxpayers are the least experienced dealing with real estate transfer tax and inheritance tax, and they have a great experience with property tax.	Taxpayers with very limited experience with paying real estate transfer tax and inheritance tax, and very experienced with paying property tax.	Taxpayers with the lowest level of experience in paying real estate transfer tax and inheritance tax,	This group of taxpayers has very limited experience with real estate transfer tax, and they are much more experienced with personal income tax.

	<i>No education/ Primary education</i>	<i>Secondary education (vocational or gymnasium)</i>	<i>Higher education/University</i>	<i>MA/PhD</i>
	These taxpayers are four times less experienced with paying personal income tax compared to persons with an MA or a PhD degree.		and they have the highest level of experience with personal income tax and property tax.	This category of taxpayers is twice as less experienced with paying property tax compared to the individuals without education or with only primary education.
	Regardless of the level of education, most of the taxpayers, i.e. 6 out of 10 individuals think that the tax rates should be reduced, and that primarily refers to value added tax rate.			
	This group of taxpayers is the most in favor of reducing the VAT compared to other taxes.	This group of taxpayers is the most numerous when it comes to insisting on the same personal income tax rate, compared to other categories of taxpayers based on their level of education.	This group of taxpayers is the most numerous one in favor of increasing the property tax rate compared to other tax rates and compared to other groups and taxpayers with different levels of education.	These taxpayers think that the personal income and value added tax rates should be the first to be reduced compared to other taxes, while the inheritance tax should be increased compared to the opinions of other respondents with different level of education.
	Regardless of the level of education, 5 out of 10 taxpayers think that the tax system in the country is unfair and a majority of them are persons with no education/primary education and secondary education.			
Opinions about tax morale	7 out of 10 taxpayers avoid purchasing goods and services on the grey market to a lesser degree.		6 out of 10 taxpayers avoid purchasing goods and services on the grey market which are not subject to taxation.	

	<i>No education/ Primary education</i>	<i>Secondary education (vocational or gymnasium)</i>	<i>Higher education/University</i>	<i>MA/PhD</i>
	<p>Taxpayers who think that the tax system in the country is fair, also think that the level of corruption at central level has remained unaltered compared to the past, and a majority of those respondents have a secondary or higher education degree.</p> <p>Taxpayers who think that the tax system in the country is unfair also think that the level of corruption at central level is higher compared to the past and a majority of these respondents have a secondary education, which is 13 times more prevalent opinion compared to that same opinion among those with higher education.</p>			
	4 out of 10 taxpayers think that it is very probable to get better services if they were to pay higher taxes.	A majority of those taxpayers think that it is little probable to expect better services by paying higher taxes, compared to other individuals and their level of education.		8 out of 10 taxpayers think that it is not probable at all to expect better services by paying higher taxes.
	<p>Regardless of the level of education, 6 out of 10 persons believe that tax avoidance is not acceptable provided that the chances of being caught are low or provided that they have better contacts with the political parties.</p> <p>4 out of 10 individuals believe that persons who cannot afford to pay their bills should not avoid paying taxes. Individuals with lower level of education would dare less to avoid paying taxes, compared to persons with higher level of education.</p>			
Trust in the institutions	Regardless of the level of education, 7 out of 10 individuals sated that they completely distrust or somewhat distrust the local and central authorities into spending their taxes.			
	7 out of 10 individuals would rather pay lower taxes and live in North Macedonia.	6 out of 10 individuals would rather pay lower taxes and live in North Macedonia, while 4 out of 10 would rather pay higher taxes and live abroad. A majority of them would rather pay higher taxes and live abroad, compared to other individuals and their level of education.	5 out of 10 individuals would rather pay lower taxes and live in North Macedonia, while the remaining 5 out of 10 would rather pay higher taxes and live abroad.	This is the smallest group of respondents who would rather pay higher taxes and live abroad, compared to other individuals and their level of education.

Difference between taxpayers' level of education and their tax behavior in North Macedonia

Taxpayers with no education or just primary education and a status of a housemaker are among the least informed about collection of taxes at central level, while those who are unemployed are the least informed about local level tax collection, compared to other categories based on their employment status. On the other hand, persons with higher/university education are among the most informed about taxes at central and local level.

Those with an MA or a PhD degree are among the taxpayers who are the most familiar with tax payment system at central and local level, i.e. 9 out of 10 individuals find the system clear.

Regardless of their level of education, 7 out of 10 individuals have no experience with paying taxes, and among those with some experience, it is mostly related to property tax, unlike personal income tax. The ones who are the most experienced with paying personal income tax are those with higher level of education. Those with primary and secondary education are mainly familiar with property tax. The respondents have stated that they are the least familiar with real estate transfer tax. Low level of direct experience with paying personal income tax may also be due to the fact that the legal entity pays the tax on behalf of the employee (gross salary), i.e. the legal entity conducts the assessment and the payment of taxes on a certain allowance (fixed-time contract, employment, service).

5 out of 10 individuals with no education/primary education and secondary education believe that the tax system in the country is unfair.

4 out of 10 persons with no education and primary education believe that there is a relative probability of receiving better services by paying higher taxes, while 8 out of 10 individuals with an MA or a PhD degree also share this belief.

When it comes to tax avoidance in the country, regardless of the level of education, 6 out of 10 individuals think that tax avoidance is unacceptable even in a case when the chances of being caught are low or if one was to have good political ties, while 4 out of 10 individuals think that those individuals who cannot afford to cover their costs should anyway pay their taxes regularly.

Therefore, individuals with a lower level of education would rather not dare to be tax noncompliant, unlike individuals with higher level of education.

Regarding the level of education and the tax rates in the country, 7 out of 10 persons with no education or with only primary education, would rather pay lower taxes and live in North Macedonia, while most of the individuals with secondary education would rather pay higher taxes and live abroad.

Taxpayers with a higher level of education who consider the tax system in the country as being unfair believe that the level of corruption at a central level has remained unaltered compared to the past. On the other hand, those taxpayers with a lower level of education who think that the tax system in the country is unfair also believe that the level of corruption at the central level is higher compared to the past, and this opinion is 13 times more prevalent in the latter group compared to the former one. This may be due to the low level of taxpayers' trust in the central and local authorities. With the non-adjudicated corruption cases deriving from the Skopje 2014 project, as well as with the infamous role the Special Public Prosecution has played, it appears that corruption and impunity of grand corruption create a feeling of unfair treatment of the citizens who are also taxpayers. It is very probable that taxpayers with higher level of education will be better informed about this reality unlike those with lower level of education, and that may be the reason why the latter would dare less to avoid paying taxes unlike the former ones who are better acquainted with the impunity system. As the findings of studies conducted in 111 countries have revealed that there is a minor, yet a significant negative link between the education of the taxpayers and their tax compliance⁴⁸, the situation in the Republic of North Macedonia is quite similar. Respondents with higher education have a tendency to be less disciplined with tax compliance compared to those with a lower education degree.

Furthermore, those individuals with a lower level of education believe that there is little probability of getting better services by paying higher taxes, and they prefer paying lower taxes and living in North Macedonia. It indicated to the fact that those with lower level of education are satisfied with the conditions in the country, and they would certainly prefer better living conditions, but the problem is that they do not believe they will get it by paying higher taxes. On the other hand, individuals with higher level of education think that it is not probable at all to expect better services in the country by paying higher taxes and that is why they prefer living abroad where, they believe, paying higher taxes will provide better living conditions and public services.

⁴⁸ Bobek, D. D., Roberts, R. W., & Sweeney, J. T. (2007). The social norms of tax compliance: Evidence from Australia, Singapore, and the United States. *Journal of Business Ethics*, 74, 49–64. <http://dx.doi.org/10.2307/25075443>

Cluster 5. Link between taxpayers' average monthly income and tax behavior

Research and experiences

The theory of a traditional tax (Allingham & Sandmo, 1972)⁴⁹ is unconvincing regarding the income and its effect on tax compliance. Tax obligations reduce the available income and that is why it is particularly detrimental to persons with low income, which may increase the risk of tax noncompliance. As a consequence of it all, the low-income taxpayers are believed to have lower level of tax compliance compared to those with higher incomes.

On the other hand, there is a greater probability for individuals with high incomes to avoid tax, compared to those with lower incomes. Chung and Trivedi (2003)⁵⁰ have found that high income is linked to lower tax compliance. Persons with high incomes pay absolutely and relatively higher tax compared to persons with lower incomes and they face higher penalties in case of tax evasion.

Several studies have corroborated the statement that by increasing the income level, the level of tax compliance goes down. Spicer and Lundstedt (1976)⁵¹ and (Andreoni et al., 1989)⁵² have proven that the income level has a statistical significance for the respondents' attitude towards tax evasion. Witte and Woodbury (1985)⁵³ have also revealed that individuals with high incomes are relatively tax non-compliant. In other studies, Crane and Nourad (1990)⁵⁴ have identifies that individuals with higher income level have a tendency to avoid paying taxes. Furthermore, Manaf et al. study (2005)⁵⁵ has revealed that taxpayers with medium income demonstrate a higher level of tax compliance unlike the taxpayers with low or high income.

The basic assumption is that individuals with higher income would rather avoid paying taxes since tax evasion is more lucrative in case of a higher income. Based on European data, Konrad and Qari (2009)⁵⁶ have not succeeded into finding evidence about the impact of income on tax morale.

⁴⁹ Allingham, M. G., & Sandmo, A. (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics*, 1, 323–338.

⁵⁰ Chung, J., & Trivedi, V. (2003). The effect of friendly persuasion and gender on tax compliance behavior. *Journal of Business Ethics*, 47, 133–145.

⁵¹ Spicer, M. W., & Lundstedt, S. B. (1976). Understanding tax evasion. *Public Finance*, 21(2), 295-305.

⁵² Andreoni, J., Erard, B., & Feinstein, J. (1998). Tax compliance. *Journal of Economic Literature*, 36, 818-860.

⁵³ Witte, A. D., & Woodbury, D. F. (1985). The effect of tax laws and tax administration on tax compliance: The case of US individual tax. *National Tax Journal*, 38(1), 1-13.

⁵⁴ Crane, S. E., & Nourad, F. (1986). Tax evasion: An empirical analysis. *The Economics and Statistics*, 68(2), 217-228.

⁵⁵ Manaf, N. A., Hasseldine, J., & Hodges, R. (2005). The determinants of Malaysian Land taxpayers' compliance attitude. *eJournal of Tax Research*, 3(2), 206-221.

⁵⁶ Konrad, K.A., & Qari, S. (2009). The last refuge of a scoundrel? Patriotism and tax compliance. *IZA Discussion Paper Series*, No. 4121.

On the other hand, Lago-Penas and Lago-Penas (2010)⁵⁷ have revealed that tax morale increases with higher income due to the fact that higher incomes reduce the financial stress and the concern for providing subsistence for the household, which leads to a higher tax compliance.

In Uganda, a statistical study was conducted and it was revealed that the taxpayers' income level has a significant impact on tax compliance. The higher the taxpayers' income is, the greater the probability is of having a lower tax compliance level (James O Alabede, 2014).⁵⁸

In Eastern Europe and Central Asia, there is a significant negative link between the income and tax compliance, which indicates to the fact that individuals with higher incomes have a tendency for lower tax compliance compared to those individuals with lower income.⁵⁹

There follows an overview of RNM taxpayers' opinions and views across income categories and their attitude towards the tax system.

⁵⁷ Lago-Penas, I., & Lago-Penas, S. (2010). The determinants of tax morale in comparative perspective: Evidence from European countries. *European Journal of Political Economy*, 26(4): 441-453.

⁵⁸ James O Alabede, 2014. An Exploratory Analysis of Individual Taxpayers' Compliance Behaviour in Nigeria: a Study of Demographic Differences and Impact

⁵⁹ Hofmann, M. Voracek, C. Bock, Erich Kirchler, 2017. Tax compliance across sociodemographic categories: Meta-analyses of survey studies in 111 countries

An overview of RNM taxpayers' different attitudes about the familiarity with the tax system and tax morale per level of education

	<i>No income households</i>	<i>Households with income below 10 thousand denars</i>	<i>Between 10 and 20 thousand denars in a household</i>	<i>Between 20 and 30 thousand denars</i>	<i>Households income between 30 and 40 thousand denars</i>	<i>Household income over 40 thousand denars</i>
Familiarity with tax system	8 out of 10 taxpayers are not informed at all or have very little information about central and local taxes.	These taxpayers are twice as less informed compared to individuals with income over 30,001 denars.	50% of the taxpayers consider themselves as the least informed regarding central and local taxes.		A majority of these individuals are informed about taxes collected at central and local level compared to individuals with other income level.	4 out of 10 taxpayers in this group are fully informed or the most informed about taxes at central and local level.
Attitude about tax system	Regardless of the average income, 6 out of 10 taxpayers find the central and local tax payment system clear, while 4 out of 10 either find it unclear or they have no answer.					
	Regardless of the average income, taxpayers find the local tax collection system clearer than the central one.					
	This group of taxpayers is among those who find the local and central tax payment system as the least clear compared to other groups of citizens with different income level. The central tax collection system is twice as less clear to this group of individuals compared to the local tax collection system.	6 out of 10 individuals find the central and local tax payment system clear.	7 out of 10 taxpayers find the central and local tax payment system clear compared to other individuals with different income level.			

	<i>No income households</i>	<i>Households with income below 10 thousand denars</i>	<i>Between 10 and 20 thousand denars in a household</i>	<i>Between 20 and 30 thousand denars</i>	<i>Household income between 30 and 40 thousand denars</i>	<i>Household income over 40 thousand denars</i>
	<p>On the average, 3 out of 10 individuals have no direct experience with paying taxes. They have had more experience with property tax compared to personal income tax. The subgroups with higher personal income are more experienced with direct personal income tax payment. As the income goes up, the average for those with lower income is 2 out of 10, while the average for those with higher income is 5 out of 10.</p> <p>The tax payers have had little experience or have not had any experience with real estate transfer tax and inheritance tax.</p>					
	<p>This group is among the least experienced or with no experience whatsoever with paying any type of tax compared to individuals with other income level.</p> <p>3 out of 10 taxpayers have some experience with personal income tax, while 9 out of 10 individuals have no experience with real estate transfer tax and inheritance tax.</p>	<p>This group is less experienced or has no experience at all with paying any type of tax compared to individuals with different income levels.</p> <p>5 out of 10 individuals have certain experience with paying taxes, compared to other taxes, while 9 out of 10 individuals have no experience whatsoever with real estate transfer tax.</p>	<p>7 out of 10 individuals have experience with property tax, which makes them as the most experienced, compared to individuals with other income levels, while 8 out of 10 individuals have no experience with real estate transfer tax.</p>	<p>This group of taxpayers is among the most experienced with property tax and real estate transfer tax compared to other persons with different income level.</p> <p>They have very little or no experience with inheritance tax, i.e. 8 out of 10 persons compared to other taxes.</p>	<p>This group of taxpayers is the most experienced with real estate transfer tax and personal income tax compared to persons with other income levels.</p> <p>They have very little or no experience with inheritance tax, with 8 out of 10 individuals compared to other taxes.</p>	<p>This group of taxpayers is the most experienced with property tax, and these individuals are three times more experienced compared to persons with no income.</p> <p>4 out of 10 individuals have not had any experience with property tax, which is more compared to individuals with income ranging between 10.001 - 20 thousand denars.</p>

	<i>No income households</i>	<i>Households with income below 10 thousand denars</i>	<i>Between 10 and 20 thousand denars in a household</i>	<i>Between 20 and 30 thousand denars</i>	<i>Households income between 30 and 40 thousand denars</i>	<i>Household income over 40 thousand denars</i>
	<p>Regardless of the average income, a majority of the taxpayers, i.e. 6 out of 10 individuals think that the tax rates should be reduced, and that primarily refers to the value added tax.</p> <p>Taxpayers with monthly income over 30 thousand denars are the most vocal in the group which claims that higher-income individuals should pay higher tax rates (also known as progressive tax rate).</p>					
	<p>These taxpayers think that the personal income and value added tax should be reduced before other types of taxes.</p>	<p>These taxpayers are the most numerous about reducing the tax rate compared to individuals with other incomes. 8 out of 10 taxpayers think that the VAT and inheritance tax are among the first taxes to be reduced.</p>	<p>7 out of 10 taxpayers think that all tax rates should be reduced regardless of the type of taxes.</p>	<p>Most of the taxpayers think that the real estate transfer tax, value added tax and property tax should remain the same compared to the opinions of other individuals.</p>	<p>Most of these taxpayers, i.e. 4 out of 10, think that the personal income tax rate should remain unaltered, compared to individuals with other incomes.</p>	<p>Compared to other groups of taxpayers, a majority of these taxpayers, i.e. 7 out of 10, think that the property tax rate should be reduced. 3 out of 10 individuals think that the inheritance tax rate should remain unaltered.</p>
	<p>Regardless of the average income, 5 out of 10 taxpayers think that the tax system in the country is unfair, Among those who share the same opinion, a great majority has an average income of 20.001 - 30 thousand denars.</p>					

	<i>No income households</i>	<i>Households with income below 10 thousand denars</i>	<i>Between 10 and 20 thousand denars in a household</i>	<i>Between 20 and 30 thousand denars</i>	<i>Households income between 30 and 40 thousand denars</i>	<i>Household income over 40 thousand denars</i>
Attitude towards tax morale	6 out of 10 taxpayers occasionally do not avoid purchasing goods and services on the grey market which are not subject to taxation.	7 out of 10 taxpayers do not avoid purchasing goods and services on the grey market which are not subject to taxation.		6 out of 10 taxpayers occasionally do not avoid purchasing goods and services on the gray market which are not subject to taxation, unlike 4 out of 10 individuals who avoid purchasing goods on the grey market.	5 out of 10 taxpayers avoid purchasing goods and services on the grey market which are not subject to taxation.	
	<p>Those taxpayers who consider the tax system in the country is being unfair, also think that the corruption level at a central level is higher compared to the past and most of them have incomes over 10 thousand denars.</p> <p>On the other hand, those taxpayers who consider the tax system as being fair, also think that the corruption at central level has remained unaltered.</p>					
	<p>The taxpayers believe that it is not probable at all to obtain better services by paying higher taxes and a majority of those taxpayers have an income ranging between 20 - 30 thousand denars. On the other hand, a majority of the individuals with income ranging between 30 - 40 thousand denars think that they would get better services by paying higher taxes.</p>					

	<i>No income households</i>	<i>Households with income below 10 thousand denars</i>	<i>Between 10 and 20 thousand denars in a household</i>	<i>Between 20 and 30 thousand denars</i>	<i>Household income between 30 and 40 thousand denars</i>	<i>Household income over 40 thousand denars</i>
Trust in the institutions	<p>Regardless of the average income, 7 out of 10 individuals completely distrust or somewhat distrust the local and central authorities into spending tax revenues.</p> <p>6 out of 10 individuals without income completely distrust the local and central authorities about spending tax revenues.</p> <p>Regardless of the average income, 6 out of 10 individuals would rather pay lower taxes and live in North Macedonian.</p>					
	6 out of 10 individuals would rather pay lower taxes and live in North Macedonian, unlike 4 out of 10 individuals who would rather pay higher taxes and live abroad.	8 out of 10 individuals would rather pay lower taxes and live in North Macedonia.		6 out of 10 individuals would rather pay lower taxes and live in North Macedonia, unlike 4 out of 10 individuals who would rather pay higher taxes and live abroad.		50% of the individuals would rather pay higher taxes and live abroad, which is the highest percentage compared to the share of other individuals with different incomes who would rather live abroad.

Difference between the level of monthly income and tax behavior in North Macedonia

Taxpayers of households with income ranging between 30 and 40 thousand denars are among the most informed citizens about local and central tax collection, while those with no income or only receive up to 10 thousand denars are among the least informed citizens.

Regardless of the household income level, the taxpayers find the local tax payment system as cleared compared to the central one.

The direct experience with tax payment increases as the income goes up.

Persons with monthly income over 30 thousand denars, compared to those with no income and those who are below 10 thousand denars, are six times more prevalent in terms of believing that individuals with higher income have to pay higher tax rates (also known as progressive tax rate).

There are no significant differences among the respondents regarding the attitude towards tax evasion. Regardless of the average income, 65% of the respondents think that it is completely unacceptable to evade taxes, while 10% consider it acceptable or fully acceptable to evade taxes.

Individuals who believe that the tax system in the country is unfair, also think that the level of corruption at central level is higher compared to the past. This group is dominated by individuals with income below 10 thousand denars.

Persons with monthly income between 30 and 40 thousand denars, compared to other individuals with different income, think that paying higher taxes would mean receiving better quality services. On the other hand, tax payers think that by paying higher taxes, it is not probable or little probable to receive better services. This opinion is mostly prevalent among taxpayers with an income between 20.001 - 30 thousand denars.

Regardless of the level of monthly income, 6 out of 10 individuals would rather pay lower taxes and live in North Macedonia. 50% of the individuals with an income exceeding 40 thousand denars would rather pay higher taxes and live abroad. These persons are better informed about the country's tax system and they also pay higher taxes compared to persons with lower income. On the other hand, they point to the distrust in the rule of law and the efficiency in spending public revenues. Therefore, these individuals pay private education and healthcare, and it comes as no surprise that they do not want to pay taxes for public services which they do not use.

On the other hand, there is room for a different opinion - persons with lower monthly income, in addition to being little informed about the tax system in the country and finding the system confusing, they also lack trust in the local and central institutions spending tax revenues. Namely, due to the low income, they

relatively do not avoid purchasing goods and services on the grey market which are not subject to taxation, unlike persons with higher incomes. Hence, they take higher risks with tax evasion, especially the VAT. As a result of it all, they lack a firm attitude towards the reduction in tax rates, at least not as much as is the case with individuals with medium and high income. However, a majority would rather pay lower taxes and live in North Macedonia. It indicates that they are satisfied with the conditions in the country, yet it does not mean that they do not want to have better living conditions, but rather that they do not trust that higher incomes would improve the climate, due to which they may be less tax compliant. On the other hand, individuals with higher income, compared to those with lower income, are 6 times more numerous in believing that the rich should pay higher tax rates. Therefore, they may not be concerned about higher tax rates since they believe that higher taxes would likely also mean better services. Hence, individuals with higher incomes are more aware and they tend towards tax compliance.

Conclusions

An analysis of the taxpayer's profiles relates to the tax compliance and tax morale, while the following aspects were taken into consideration: 1) sociodemographic characteristics, such as age, gender, ethnicity and 2) socioeconomic characteristics, such as education, employment and taxpayers' income.

<i>Sociodemographic:</i>	<i>Socioeconomic:</i>
<ul style="list-style-type: none">• <i>Gender</i>• <i>Age</i>• <i>Ethnicity</i>	<ul style="list-style-type: none">• <i>Education level</i>• <i>Purchasing power</i>

1) SOCIODEMOGRAPHIC FACTORS

Gender

Compared to male taxpayers, the female taxpayers demonstrate a higher level of tax morale, measured through the level of (non)acceptance of tax evasion behavior. At the same time, female taxpayers have demonstrated a higher level of discipline for tax compliance and a higher level of tax morale compared to male taxpayers. This difference may be due to the gender gap on the labor market and gender inequality. In addition to being less represented and less active on the labor market, women are exposed to a greater risk of losing their jobs and that is why they may be more disciplined and thus tax compliant. The distress of being exposed to risk due to tax noncompliance is greater among women compared to men, and that may be one of the reasons why their tax morale is higher. Female taxpayers have a slightly better perception of the tax system fairness, and may be another contributing factors for a higher level of tax morale.

Age

The analysis from the tax morale survey among the younger respondents has revealed that emigration is on the rise. Namely, 7 out of 10 individuals aged between 18 and 24 would rather pay higher taxes and live abroad, while the more senior individuals would rather pay lower taxes and live in North Macedonia.

Citizens aged under 40 years prefer leaving the country and paying higher taxes somewhere abroad, unlike those over 40 who prefer lower taxes and to live in North Macedonia, which shows that they are satisfied with the living conditions in North Macedonia due to resignation. They do not believe that higher taxes would improve the climate, nor do they believe that they can make a change. In addition, they also believe that tax revenues will end up in the inefficient public system through corruption at both central and local level. Higher level of tax morale is seen among the more senior group of taxpayers, in particular among those older than 55 and older than 65 years, as measured through the level of (non)acceptable behavior in tax avoidance. This group, especially the one over 65, decides to take lower risks due to higher social stakes and they are more in favor of the social norm whereby tax evasion is unacceptable, which may be the reason for higher tax discipline and thus tax compliance.

Ethnicity

The central tax payment system is more familiar to the Macedonians, while the local tax system is more familiar to the Albanian ethnicity in North Macedonia. A majority of the Macedonians and the group of other (ethnic groups) believe that corruption at both the central and local level has remained unaltered compared to 5 years ago, unlike the Albanian taxpayers who believe that the level of corruption is higher compared to that of 5 years ago. Some of the minor ethnic communities have demonstrated higher degree of tax morale, which is measured by the level of (un)acceptable behavior when it comes to tax evasion and tax fraud, followed by the Macedonians and the Albanians. This can also be linked to the high level of fragmentation in the Macedonian society, which can, in turn, affect the trust in the system, the public service quality, etc.

2) SOCIOECONOMIC FACTORS

Level of education

Individuals with a lower level of education have demonstrated higher level of tax morale, measured through the level of (un)acceptable behavior related to tax evasion and tax fraud, and that same category also has the highest level of difference regarding the acceptable reasons for not paying taxes in cases when the government is corrupt. Taxpayers with a higher level of education, who believe that the tax system in the country is fair, also think that the corruption at the central level has remained unaltered. Taxpayers with a lower level of education, who think that the tax system in the country is unfair and that corruption at the central level is higher compared to the past, are thirteen times more numerous compared to those with a higher level of education. A majority of the highest educated individuals with a degree higher than a Bachelor, have a very strong perception that the tax system is unfair. Simultaneously, taxpayers with higher level of education (university and higher) find tax fraud more acceptable in case of corruption. This can also be due to the low level of taxpayers' trust in local and central authorities. The unresolved grand corruption cases in RNM and their impunity create a feeling of unfair treatment of the citizens who are taxpayers, as well. It is more likely that individuals with higher level of corruption, compared to those with lower level of education, are better informed about the tax morale state of play and the seriousness of the consequences, which may be the reason why individuals with lower level of education would dare less to avoid taxes. On the other hand, individuals with higher level of education are more aware of the fact that the sanction system is nonoperational. Just as the recent studies which covered 111 countries worldwide have demonstrated that there is a relatively minor, yet a statistically significant negative link between taxpayers' education and tax compliance⁶⁰, the situation in North Macedonia corresponds very much to that. Respondents with higher education demonstrate a tendency to be less disciplined in terms of tax compliance, compared to those with lower level of education.

Furthermore, individuals with lower level of education believe that it is not likely that they will get better services by paying higher taxes, yet they would rather pay lower taxes and live in North Macedonia. It indicates that individuals with lower level of education are satisfied with the living conditions in the country and they would like to have better living conditions, but at the same time they are not fully convinced that higher taxes would improve the overall situation. On the other hand, persons with higher

education consider it completely unlikely to get better services by paying higher taxes, and that is why a majority of them would rather live abroad where, they believe, higher taxes provide a better life quality and better services.

Purchasing power

Taxpayers with income exceeding 50 thousand denars have demonstrated a higher tax morale, measured by the level of (un)acceptable behavior for tax evasion and tax fraud and that category is the one with a lot of disagreement on whether tax noncompliance is acceptable in case when the government is corrupt. A majority of the taxpayers with income exceeding 40 thousand denars would rather pay higher taxes and live abroad. They are informed about the tax system in the country and pay higher taxes compared to persons with lower income, but they do not trust the rule of law and think that they do not receive good services, and that is why they pay additionally for private services, such as education and healthcare. Therefore, they would rather not pay taxes for services which they do not use. They are well informed about the tax system, they also believe that there is no rule of law and that impunity is at high level, which may altogether make them believe that not paying taxes for their high incomes is more lucrative due to the fact that impunity is at a high level.

On the other hand, individuals with low monthly income, in addition to being poorly informed about the tax system in the country and finding it unclear, they also lack trust in the local and central authorities spending the tax revenues. Namely, due to their low income, they tend less to avoid purchasing goods and services on the grey market which are not subject to taxation unlike persons with higher income, and that is why they face higher risks by avoiding taxes, and VAT in particular. For that reason, they do not have a firm attitude towards reducing the tax rates, at least not as much as is the case with individuals with middle and high income.

However, a majority of them would rather pay lower taxes and live in North Macedonia. Simultaneously with that, individuals with high income, compared to those with low income, are 6 times more determined about rich people having to pay higher tax rates. Therefore, a conclusion can be drawn that they may not be afraid of higher taxes, for higher taxes would also bring better services, and they are also tax compliant.

⁶⁰ Bobek, D. D., Roberts, R. W., & Sweeney, J. T. (2007). The social norms of tax compliance: Evidence from Australia, Singapore, and the United States. *Journal of Business Ethics*, 74, 49–64.
<http://dx.doi.org/10.2307/25075443>

ANNEX: Summary statistics about tax morale and its links to certain variables and sociodemographic characteristics

Experience from other countries has demonstrated that sociodemographic factors/characteristics are determinants which affect the tax behavior, i.e. tax morale and discipline, as well as tax compliance.

In terms of studying the influence of certain variables on the RNM sample at the beginning of 2020, we tried to identify a statistical significance and link between these factors and the tax morale, as well as a link between the attitude towards tax compliance and the perception about corruption, the link between tax avoidance when the revenues are inadequately spent and the perception about the tax system being (un)fair etc.

With the purpose of measuring the respondents', i.e. taxpayers' perception in RN Macedonia about tax morale through their level of (un)acceptable behavior regarding tax evasion and tax fraud, perception about corruption, inadequate spending of the revenues, as well as (un)fair tax system and the degree of accepting tax fraud in the region (social norms), all the differences are subject to deliberation in groups based on the sociodemographic and socioeconomic characteristics.

Taking into consideration all the answers on a scale of 1 to 5, a conclusion can be drawn as follows: *for the most part the citizens of RNM perceive themselves as tax responsible and consider tax fraud as unacceptable behavior.* There are some minor differences in the average answer values among the various categories/various characteristics about the acceptable level of tax fraud, with indications to the higher tax morale (tax fraud is an unacceptable behavior) *for females, more senior individuals (over 55 and over 65), students and retired persons, persons with the lowest level of education, taxpayers from the Eastern part of the country, as well as persons with the highest income in the household.*

By using the ANOVA test, we would like to identify whether there is a statistical significance about the link between the variables, i.e. the extent to which it is (un)acceptable to commit a tax fraud across categories and characteristics. With the tests we have established that there are statistically significant differences between the average of the group (per categories with various characteristics) about the following questions and categories ($p < 0.05$):

Regarding the *(un)acceptable level of tax fraud*, there is a significant statistical difference which is repetitive among the groups per age, ethnicity, religion, region (tax region) and income.

Regarding the level of *acceptable fraud in relation to the level of (perception about) corruption*, the acceptable level of tax fraud is increasing, i.e. tax morale is

is decreasing among citizens with a higher corruption perception. Yet, based on the average answers, certain categories with certain characteristics have demonstrated higher tax morale: *females, seniors and junior adults, unemployed individuals – housekeepers, Macedonians, individuals in the Eastern part of the country, persons with minimum income, as well as maximum income in the household.*

By using the ANOVA test, the statistical significance regarding the level of corruption and tax morale (COR) is reestablished, and so are the significant differences across groups per *regions and household income.*

The level of (non)acceptability to commit tax fraud depends on taxpayers' perception about proper spending of public revenues. Regarding the difference in attitudes (to a lesser extend), the average answers indicate to a higher level of tax morale (non-acceptance of tax fraud) among the following categories: *females, junior adults, students, Macedonians, non-religious persons and individuals from the Eastern region.*

By using the ANOVA test, the statistical significance regarding the level of *appropriate spending of public revenues and tax morale (GOV)* has indicated that there is a statistically significant difference only among the groups across regions and household income.

Based on the average answers, the level of acceptability for tax fraud when the tax system is unfair is higher in case when the taxpayers think that the tax system is unfair. The differences in the attitude (to a lesser extend) indicate to a higher level of tax morale among *females, junior adults, individuals with the highest level of education, students, Macedonians, individuals from the Eastern region and those with the highest household income.*

Acceptability for a person from the community to commit a tax fraud, when regarded as a social norm, is again related to the average of the entire sample, and there are some differences in the lower level of acceptability of tax fraud among individuals from the following groups: *males, senior citizens, individuals with the highest level of education, housekeepers, Macedonians, individuals from the Eastern part of the country and groups with middle household income.*

Statistical significance regarding the level of acceptable tax fraud by others in the community is established as a social norm (SOCN) and it also demonstrates that there is a difference among the groups divided by *age, employment status, ethnicity, religion and region.*

Table: Summary statistics about certain variables

	FREQ	%	mean TM (A16_18)	TM (SD)	mean COR (A16_17)	COR (SD)	mean GOV (A16_11)	GOV (SD)	mean FAIR (A16_1)	FAIR (SD)	mean SOCN (A16_10)	SOCN (SD)
<i>Gender</i>												
Female	499	49.90	1.53	1.167	2.35	1.691	2.61	1.64	2.95	1.72	2.54	1.60
Male	501	50.1	1.65	1.222	2.47	1.646	2.68	1.53	3.28	1.70	2.50	1.63
<i>Age</i>												
18-24	100	10.0	1.52	1.359	2.42	1.748	2.37	1.70	2.31	2.06	2.71	1.77
25-34	181	18.1	1.63	1.179	2.53	1.727	2.58	1.56	3.00	1.70	2.54	1.66
35-44	233	23.3	1.78	1.253	2.58	1.636	2.80	1.56	3.29	1.57	2.76	1.57
45-54	182	18.2	1.7	1.253	2.47	1.654	2.85	1.57	3.37	1.60	2.57	1.59
55-64	172	17.2	1.39	1.023	2.72	7.549	2.52	1.58	2.94	1.70	2.27	1.58
Over 65	132	13.2	1.37	1.044	2.21	1.690	2.54	1.59	3.45	1.70	2.17	1.54
<i>Education level</i>												
No education / primary school	157	15.7	1.33	1.088	2.25	1.794	2.72	1.81	3.35	1.69	2.48	1.72
Secondary school (vocational and gymnasium)	490	49.0	1.60	1.213	2.41	1.624	2.63	1.57	3.08	1.78	2.48	1.60
Higher education	320	32.0	1.65	1.180	2.51	1.672	2.64	1.50	3.07	1.62	2.65	1.57
MA / PhD	33	3.3	1.82	1.467	2.30	1.686	2.39	1.54	2.97	1.79	2.06	1.75
<i>Occupational status</i>												
Employed	573	57.3	1.67	1.19	2.48	1.60	2.69	1.48	3.14	1.59	2.62	1.59
Unemployed	146	14.6	1.57	1.24	2.58	1.83	2.90	1.74	3.20	1.98	2.63	1.69
Housekeeper	58	5.8	1.50	1.45	2.00	1.89	2.03	1.81	2.84	1.92	2.07	1.78
Student	47	4.7	1.43	1.25	2.26	1.71	1.87	1.56	1.96	1.89	2.70	1.65
Retiree	176	17.6	1.41	1.04	2.22	1.64	2.66	1.62	3.36	1.66	2.21	1.51
<i>Ethnic background</i>												
Macedonian	716	71.6	1.49	1.13	2.37	1.65	2.59	1.57	3.09	1.72	2.38	1.545
Albanian	230	23.0	1.98	1.35	2.53	1.69	2.71	1.61	3.18	1.68	2.76	1.703
Serb	6	.6										
Turk	6	.6										
Roma	24	2.4	1.24	0.91	2.43	1.81	3.06	1.62	3.26	1.89	3.30	1.84
Bosniak	5	.5										
Other _____	13	1.3										
<i>Religiousness</i>												
Not religious at all	37	3.7	1.43	1.24	2.38	1.89	1.95	1.49	2.92	2.01	2.19	1.647
2	102	10.2	1.53	1.21	2.45	1.63	2.49	1.65	3.17	1.74	2.24	1.642
3	394	39.4	1.57	1.16	2.37	1.64	2.73	1.54	3.10	1.68	2.41	1.572
4	261	26.1	1.71	1.24	2.48	1.64	2.62	1.48	3.16	1.66	2.70	1.560
Very religious	192	19.2	1.46	1.13	2.36	1.74	2.69	1.77	3.11	1.81	2.65	1.724
Do not know / No answer	14	1.4	2.43	1.70	2.93	1.94	2.86	1.66	2.86	2.07	3.21	1.578
<i>Regional office</i>												
RO Skopje	294	29.4	1.44	1.00	2.27	1.60	2.60	1.58	3.33	1.63	2.88	1.61
RO Tetovo	178	17.8	1.81	1.39	2.34	1.72	2.90	1.70	3.21	1.79	2.82	1.81
RO Bitola	126	12.6	2.11	1.49	2.94	1.74	3.06	1.50	2.79	2.08	2.64	1.56

Table: Summary statistics about certain variables

	FREQ	%	mean TM (A16_18)	TM (SD)	mean COR (A16_17)	COR (SD)	mean GOV (A16_11)	GOV (SD)	mean FAIR (A16_1)	FAIR (SD)	mean SOCN (A16_10)	SOCN (SD)
RO Prilep	135	13.5	1.65	1.24	3.16	1.52	2.89	1.51	3.41	1.13	2.48	1.49
RO Shtip	179	17.9	1.42	0.98	2.09	1.60	2.21	1.35	2.89	1.76	1.92	1.25
RO Strumica	88	8.8	1.13	0.86	1.76	1.47	2.15	1.74	2.70	1.81	1.81	1.62
Household income										1.72		
No income	24	2.4	1.88	1.39	2.42	1.79	2.71	2.12	3.08	1.82	2.63	1.884
Up to 10,000 denars	35	3.5	1.54	1.24	2.51	1.84	2.94	1.70	3.97	1.36	2.71	1.824
10,001- 20,000 denars	151	15.1	1.51	1.06	2.03	1.56	2.62	1.55	3.43	1.58	2.46	1.544
20,001- 30,000 denars	193	19.3	1.73	1.25	2.64	1.71	2.77	1.53	3.18	1.71	2.47	1.538
30,001- 40,000 denars	176	17.6	1.80	1.36	2.74	1.68	2.77	1.61	3.32	1.58	2.37	1.563
40,001- 50,000 denars	117	11.7	1.55	1.14	2.48	1.64	2.72	1.45	3.14	1.66	2.49	1.606
Over 50,001denars	77	7.7	1.39	1.10	2.32	1.60	2.64	1.56	2.53	1.77	2.75	1.632
Answer denied	227	22.7	1.43	1.09	2.20	1.64	2.37	1.62	2.75	1.86	2.61	1.712
Average			1.59	1.20	2.41	1.67	2.64	1.59	3.12	1.72	2.25	1.62

Note: Tax morale (TM) is an internal / intrinsic motivation for paying taxes and the level was measured on a scale of 1 to 5 where 1 (the respondent fully disagrees with the statement that tax fraud is acceptable) indicates that tax evasion is not acceptable or ethical, while 5 means that it is acceptable and ethical (I fully agree with the statement that tax fraud is acceptable).

Corruption (COR), efficient spending of public revenues (GOV), the perception about fairness of the system (FAIR) and social norm (SOCN) were also measured on a scale from 1 to 5 (1 I fully disagree, 5 I fully agree)

TM Tax morale\	Question A16-18	Tax fraud, if possible, is acceptable
COR Corruption	Question A16-17	Tax evasion is acceptable in case when the government is corrupt If public revenues are not spent in line with the citizens' needs, tax evasion is acceptable
GOV Government spending	Question A16-11	
FAIR Perception of Fairness	Question A16-1	The national tax system is unfair I accept tax avoidance by some of my close friends and family members
SOC Social norm	Question A16-10	

Source: survey processed data in RN Macedonian within the CEA Project

Table: F statistics, (p) statistical significance, ANOVA

	TM	COR	GOV	FAIR	SOCN
	F, p	F, p	F, p	F, p	F, p
<i>Gender</i>					
F	2.424	1.301	0.479	8.925	0.154
p	0.120	0.254	0.489	0.003	0.695
<i>Age</i>					
F	3.453	2.021	2.035	7.441	3.391
p	0.004	0.073	0.071	0.000	0.005
<i>Education level</i>					
F	2.513	0.853	0.400	1.198	1.731
p	0.057	0.465	0.753	0.309	0.159
<i>Occupational status</i>					
F	1.941	2.187	6.171	6.845	3.607
p	0.101	0.068	0.000	0.000	0.006
Eta (correlation)					
<i>Ethnical background</i>					
F	17.777	0.850	2.488	.453	11.458
p	0.000	0.428	0.084	.636	0.000
<i>Religious background</i>					
F	2.609	0.448	1.961	.219	2.732
p	0.024	0.815	0.082	.955	0.018
<i>Region</i>					
F	10.875	13.165	7.984	4.353	13.379
p	0.000	0.000	0.000	0.001	0.000
<i>Household income</i>					
F	3.229	3.276	1.547	5.226	0.677
p	0.000	0.002	0.148	0.000	0.692

Source: survey processed data in RN Macedonian within the CEA Project

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