

Factors of Tax Evasion in Greece: Taxpayers' Perspective

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ABSTRACT

The aim of this study is to analyze the causes (criteria and sub-criteria) of tax evasion in contemporary Greece. Within the framework of the analytic hierarchy process (AHP) methodology, the research questions this study seeks to address are as follows: what drives people to avoid or evade taxes? What is the significance of each criterion and sub-criterion and how can they be ranked? The questionnaire survey covered 2,789 respondents (business owners, accountants and tax officers) from 26 Greek prefectures. The main objective of the AHP analysis is to classify the alternatives by making pairwise comparisons of qualitative and/or quantitative criteria (and sub-criteria) based on experts' judgements. The results showed that excessive taxation and impunity for tax evasion are considered to be the main reasons for tax evasion in Greece. Among other significant factors are complexity of the legislation and opacity in public financial management. At the same time respondents did not consider deficient education as a significant factor. We also found differences in respondents' evaluations of the sub-criteria: for instance, businessmen and tax officers disagreed about the significance of such factors as the unfair tax scale and corruption among tax collectors. The results reveal the mutual lack of trust between taxpayers and tax authorities in Greece. The Greek government is required to ensure justice and stability of the tax system; lower the tax rates; and introduce heavier penalties for tax evaders. Moreover, the system of public financial management should become more transparent to foster taxpayers' trust and thus encourage tax compliance.

KEYWORDS

tax evasion, Greece, analytic hierarchy process, excessive taxation, impunity, complexity of legislation, opacity in public financial management, deficient education

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Оригинальная статья

Факторы уклонения от уплаты налогов в Греции: взгляд налогоплательщика

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АННОТАЦИЯ

Цель настоящего исследования – провести анализ причин (критериев и подкритериев) уклонения от уплаты налогов в современной Греции. В исследовании применяется метод анализа иерархий и рассматриваются следующие вопросы: что заставляет людей уклоняться от уплаты налогов? Какова значимость каждого критерия и подкритерия по отношению друг к другу? Исследование опирается на результаты анкетного опроса 2789 респондентов (бизнесменов, бухгалтеров и служащих налоговых ведомств) из 26 греческих префектур. Основная цель анализа иерархий состоит в том, чтобы классифицировать альтернативы, обработав последовательности суждений экспертов по парным сравнениям качественных и количественных критериев (и подкритериев). Результаты

показали, что чрезмерное налогообложение и недостаточность наказания за уклонение от уплаты налогов являются основными причинами данной проблемы в Греции. Что касается других факторов, то они включают в себя усложненное законодательство и отсутствие прозрачности в системе управления государственными финансами. Вместе с тем, значимость такого фактора, как недостатки образования налогоплательщиков, оказалась низкой. Мы также обнаружили расхождения в оценках, которые респонденты давали некоторым подкритериям: например, бизнесмены и сотрудники налоговых ведомств поразному оценивали значимость таких факторов, как несправедливая шкала налогообложения и коррупция среди сборщиков налогов. Исследование выявило взаимное недоверие, существующее между налогоплательщиками и налоговыми органами в Греции. Делается вывод о том, что греческому правительству следует обеспечить справедливость и стабильность системы налогообложения, снизить налоговые ставки и одновременно ввести более суровое наказание за уклонение от уплаты налогов. Для того, чтобы повысить уровень доверия налогоплательщиков и улучшить налоговую дисциплину, необходимо увеличить прозрачность системы управления государственными финансами.

КЛЮЧЕВЫЕ СЛОВА

уклонение от уплаты налогов, Греция, обработка аналитических иерархий, чрезмерное налогообложение, безнаказанность, усложненное законодательство, низкий уровень прозрачности общественных финансов, недостатки образования

1. Introduction

A crucial problem faced by the Greek tax system is the extensive shadow economy and tax evasion, which is one of the most important problems that threatens public revenue. Not only does tax evasion result in the loss of state income but it also creates some serious distortions in the distribution of resources and in the economic activity [1, p. 621]. Figure 1 illustrates the size of the shadow economy in

different countries, and Greece is marked with an arrow.

What makes tax evasion an urgent problem is the budgetary issues and those of fundamental social justice. However, one should not think of this problem merely in the light of the need to 'change culture' and ensure the 'moral conversion' of Greek society. Tax evaders behave rationally, that is, pursue their own interests, and there is likelihood that those who do

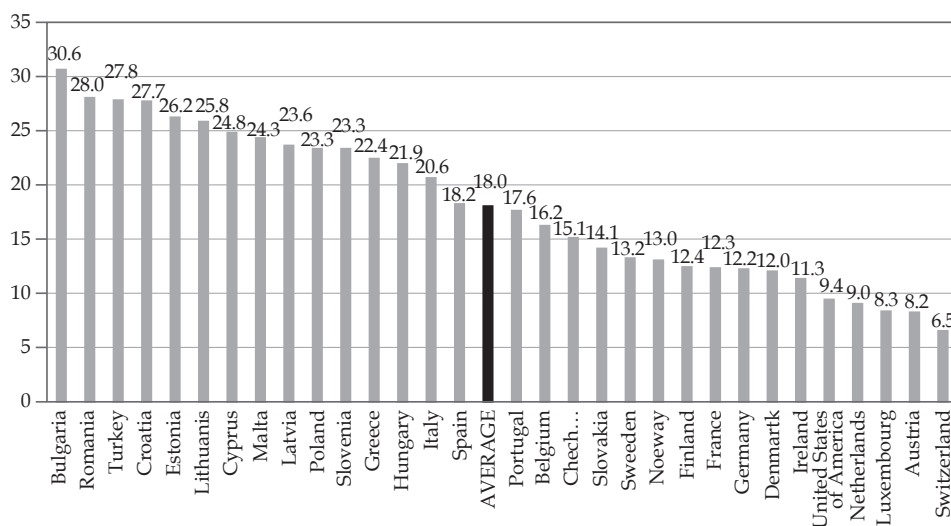


Fig. 1. The size of the shadow economy in 31 countries in 2015 (in % of GDP)

Source: [2, p. 4]

not evade taxes are simply unable to do so even though they are generally willing to.

Various statistical surveys conducted by financial analysts and economists as well as the available empirical studies and estimates of tax evasion and the shadow economy show that the problem of tax evasion in Greece is a real one¹, it is chronic and extended [3]. The complexity of the Greek tax system in conjunction with the structure of the Greek economy, which is characterized by a relatively high number of self-employed people, tend to increase the probability and the diversity of the ways of tax evasion. At the same time, organizational weaknesses and other flaws inherent in the mechanisms of tax control and tax collection aggravate the problem.

The causes of tax evasion can be roughly divided into five key categories: a) legislative-political, b) technological, c) bureaucratic-organizational, d) structural, and e) cultural. The legislative-political causes of tax evasion originate in the practiced tax policy and the political environment in the country and include the following factors²:

- complexity of the tax legislation system;
- opacity in public financial management, which creates the feeling of insecurity and injustice in taxpayers as well as in employees of tax administration;
- excessive taxation;
- impunity for tax evasion and political will insufficient for addressing the problem efficiently.

The lack of technological and organizational infrastructure of tax administration is one of the factors intensifying tax evasion. The absence of total computerization and systematic registry of electronic files and data creates organizational problems and impedes efficient information processing. The situation is aggravated even more by ineffective control and bureaucratic red tape. At the same time the lack of sufficient and modern techno-

logical infrastructure; dysfunctions in the existing data system (slow updating of information on the changing in the legislation) and the lack of access to particular information contribute to the problem of tax evasion.

Bureaucracy is another problem that intensifies tax evasion. This problem is faced not only by the Greek tax system but also by many other countries.

The structural reasons for tax evasion in Greece include a very high number of self-employed people and very small enterprises. These factors are conducive to tax evasion through the following³:

1. The high rate of employment (compared with other European countries) in family businesses, with the majority of family members not contributing to social security institutions.
2. Hindrance of tax control due to difficult and complicated auditing process.
3. Self-employment facilitates income concealment.

The lack of adequate education to ensure consistent tax-paying culture constitutes another major factor of tax evasion. There is evidence that when the reciprocity of state in the conscience of citizens is low while the rights and the obligations of tax payers are not evident, tax evasion is blossoming⁴ [3].

The economic survey among OECD⁵ countries has shown that the increase in tax and actuarial levies together with stricter legislation lead to an increase in tax evasion, black economy, corruption and low tax morale.

The purpose of this study is to analyze the causes of tax evasion in modern Greece with the help of a survey conducted among the key stakeholders – tax officers, business owners and accountants.

The research is based on the analysis of the current and prospective causes of tax evasions (criteria and sub-criteria).

³ *Annual Reporting in 2016/2017*, September 2017, EY building a better working world, 2016.

⁴ *Economic Surveys: Greece*. OECD, 2018, p. 24. Available at: <http://www.oecd.org/surveys/economic-survey-greece.htm>

⁵ *Economic Surveys: Greece*. OECD, 2018, p. 24. Available at: <http://www.oecd.org/surveys/economic-survey-greece.htm>

¹ *Economic Bulletin*. No. 35. Bank of Greece, 2011. <https://www.bankofgreece.gr/Publications/econbull201106.pdf>

² *Annual Reporting in 2016/2017*, September 2017, EY building a better working world, 2016.

The research questions the study seeks to address are as follows: what drives people to avoid or evade taxes? What is the significance of each criterion and sub-criterion and how can they be ranked?

To answer these questions, we apply the quantitative research analysis of analytic hierarchy process (AHP), based on the data collected via a questionnaire survey involving key experts, such as tax-officers, business owners and accountants. Our findings are then compared with those of previous studies and thus provide important implications for policy makers.

2. Historical and Literature Review

2.1. Why do we pay taxes?

The typical questions that are usually asked regarding taxes are, ‘Why do we pay taxes?’, ‘Will taxes ever go away?’ and ‘Do we receive the benefits for which we pay our taxes?’

The history of taxation goes back to ancient societies in Greece, Egypt and Rome: ‘The politicians in Ancient Greece strained their ingenuity to discover new sources of public revenue...’ [4, p. 66]. In times of war citizens were charged with more taxes. Egyptian pharaohs imposed a tax on specific kind of goods, which was not a type of income tax. They also imposed the “wealth tax”, based on the wealth of each citizen, to help finance wars. Financing war through taxation was a common policy in ancient societies. The relevant tax imposed by Athenians for similar purposes was called *eisfora*, which means levy or donation.

The Romans introduced customs duties called *portoria* on imports and exports. Caesar Augustus established a 5% inheritance tax to provide retirement funds for the military. Julius Caesar was the first to implement a 1% sales tax across the Roman Empire, which became 4% at the time of Caesar Augustus.

After the fall of Rome, in Anglo-Saxon England, *danegeld* taxes were levied depending on the value of land and property. The majority of taxes were imposed on wealthier citizens – like clergy, nobles, and merchants, in England’s early tax sys-

tem, while the poor people paid little or no taxes. The excise tax burden was imposed on basic goods such as meat and grain: unlike all the other taxes based on the progressive approach, the excise taxes used the regressive approach. The income tax was introduced in England in 1800 to help finance wars. Americans had to pay taxes to England on imported goods such as molasses, sugar, wine, and so on. All of these taxes, along with the direct tax on all newspapers, commercial and legal documents printed in Colonial America, eventually forced the Americans to revolt against the British.

The newly formed American nation was a tax-free country for many years, confining government revenue from tariffs and duties on certain items like sugar, tobacco, and liquor. The property tax was introduced to finance the war against France while increased duty fees and excise taxes were imposed to finance the war with England. To finance world wars, Americans were charged taxes on estates and business profits. The introduction of sales taxes, income taxes and other types of taxes is a rather modern invention. Nowadays every country has its own taxation system, including income taxes, import and export taxes, payroll taxes etc.

The key questions regarding the effectiveness of contemporary tax systems are, ‘Are governments collecting the amount of taxes they anticipated?’, ‘Are taxes fairly imposed on all citizens?’, and ‘Why do some persons or businesses not pay the taxes they ought to?’

The history of taxation shows that the result of tax imposition was “a wholesale hiding of wealth and income, evasion became universal, goods were seized, men were thrown into jail. But the wealth still hid itself, or melted away” [4, p. 66]. Tax evasion is as old as the financial transactions between people and in all likelihood, it appeared together with taxation itself. The phenomenon was known in ancient Athens and Sparta as well as in the Roman and later the Byzantine Empire, and there is historical evidence that tax evaders were subject to penalties in Ancient Israel.

The phenomenon of tax evasion has now acquired a global dimension and affects even countries with well-organized tax systems and public administration in the EU and USA. It is difficult or even impossible to calculate precisely the amount of tax evasion, although this can be done by estimating the size of the shadow economy. No country has been able to combat the phenomenon of tax evasion and for many countries this sphere remains virtually unregulated.

The Nobel Prize laureate in Economic Science Maurice Allais [5] has given a definition of tax, emphasizing that it is the price which every citizen pays to a state for the services offered by the state. These services for which the citizen pays taxes are public goods that have no market value. Therefore, taxes are mandatory cash payments of the citizens to the state in which they live.

The characteristic of taxes is their binding nature and the reduction of the disposable income of citizens, who want to enjoy these public goods but do not want to pay for them. However, the state that provides citizens with public services must cover the costs by requiring all citizens to pay a part of these costs. People, however, use various ways to reduce their tax burden. If they succeed to do so, this results in unfair distribution of the tax burden and may alter the objectives of the economic policy.

Combating tax avoidance and tax evasion requires an effective fiscal policy system with control procedures designed to promote healthy fiscal morale and at the same time to include criminal sanctions.

“Intentional or unintentional failure of taxpayers to meet their tax obligations” [6, p. 2] as stipulated by tax laws is commonly referred to as noncompliance. Noncompliance may be considered as tax avoidance, while tax evasion is the deliberate act of noncompliance resulting in underpayment or non-payment of taxes [7, p. 216]. Depending on the categories of taxes, different ways and methods may be used to evade taxes [3; 8].

Although the (cash) incidence of tax evasion on public revenue cannot escape

public notice, other negative economic and social implications of this phenomenon are somewhat less obvious. Evasion accounts for nearly a half of the public sector deficit; it also contributes to subsequent macroeconomic imbalances⁶. A significant reduction of tax evasion would have been enough to gradually decrease the ratio of government debt to GDP [9, p. 431].

Among the most recent studies concerning tax evasion and tax avoidance are those of Alstadsaeter et al. on tax evasion and avoidance in Norway [10]; Çetin et al. [11] regarding the factors affecting taxpayers’ perspective on tax administration in Turkey; Kanbiro [12] on the factors influencing voluntary compliance with the tax system in south Ethiopia. Kiow et al. [13] and Razieh et al. [14] focus on Malaysia to examine the determinants of individual taxpayers’ compliance and the factors affecting tax evasion [14]. Walsh has examined taxpayers’ behavior using Ireland as a case study [15].

2.2. Determinants of tax evasion

The most important factors which influence tax evasion and the success of taxpayers’ efforts not to pay their taxes are as follows [16, p. 451; 17, p. 6; 18, p. 129]:

1. *Educational and cultural level of taxpayers.* It has been proved that the lower is people’s educational and cultural level, the more pronounced are tax evasion tendencies. In other words, tax evasion is seen as a result of the absence of basic education, ethical values and humanitarian principles. The Ministry of Finance and other state bodies are treated as an enemy by taxpayers. As a result, entrepreneurs seek to move their economic activities to the shadow sector or black economy. Such economic activities are moved from legal economy to the shadow or black economy [19, p. 182].

2. *Distribution of the tax burden.* *Ceteris paribus*, tax evasion is higher when the distribution of the tax burden is not consistent with the prevailing in the society concept of social justice.

⁶ *Economic Surveys: Greece.* OECD, 2018, p. 24. Available at: <http://www.oecd.org/surveys/economic-survey-greece.htm>

3. *Tax burden.* The heavier the tax burden is, the greater is tax evasion.

4. *Management of public finance.* The more prudent and rational is the management of public revenues, the less are taxpayers prone to engage in tax evasion.

5. *Structure of the tax system.* The extent of tax evasion largely depends on the structure, functions and internal coherence of the tax system.

6. *Organization and level of tax services.* The proper organization of tax services and their equipment with modern means limit substantially the possibilities for tax evasion and facilitate identification of tax evaders.

7. *Development and organization of the national economy.* In well-organized economies, transactions between taxpayers and economic units are recorded easily and fiscal institutions have at their disposal more reliable material for carrying out their work.

8. *Organization of the market.* If there are many small firms operating in the country, there will be more possibilities for tax evasion.

9. *The structure of national income.* The structure of the national income determines the extent of tax evasion. Tax evasion is limited or even impossible in the case of income from wages and pensions, but it is more difficult to prevent tax evasion in the case of income from professional occupations and rural activities.

Windrobe believes that tax evasion depends on the state's ability to satisfy citizens' needs and the honesty of the government. He describes four different cases [16, p. 3–5]:

- individuals and businesses believe that the government cannot satisfy their needs no matter how honest they might consider the government; taxpayers will attempt not to pay all their taxes;

- citizens and businesses do not trust their government and for this reason they refuse to pay their taxes;

- taxpayers assume that others evade taxes and therefore they think they have a right to do the same;

- individuals and firms believe that the tax system is fair and they are willing to pay their taxes

Alstadsaeter et al. suggest focusing on "cracking down evasion by the wealthy, as an effective way to raise tax revenue, increase tax progressivity, and ultimately reduce inequality" [10, p. 1]. Moreover, they believe that "tax enforcement policies have an important role to play for the sustainability of progressive taxation in a globalized world", which shows "the desirability of fighting tax evasion at the top end of the wealth distribution" [10; 14].

Çetin et al. suggest in their research that "fairness and trust in the administration have a significant impact on taxpayers' perspectives" [11, p. 18]. Furthermore, the results of this study indicate that policy-makers who want to support taxpayers' perspectives on tax administration, should develop strategies based on improving fairness, trust, and taxpayers' rights [11, p. 27].

Razieh et al. found that the "tax burdens, the size of governments and inflation rate have positive effect on tax evasion" [14, p. 1524]. They also believe that the income of the taxpayer, trade openness, inflation rate and, finally, the tax burden are the main factors that affect tax evasion [14, p. 1531]. Kiow et al. conclude that "tax compliance behaviour of individual taxpayers is influenced by ethical perception of individual taxpayers and their ethical perception is affected by public governance and transparency in government operations" [13, p. 38].

Kanbiro found that the variables of "gender, age, lack of tax knowledge, simplicity of tax system, awareness on penalty, probability of being audit" are the key factors influencing taxpayers' voluntary compliance, in contrast with such variables as "education level, tax authority efficiency, peer influence, occupation, income level of taxpayers, perception on government speeding, and perception on fairness and equity which are considered not significant on tax voluntary compliance attitude". [12, p. 2, 105]. Walsh concluded that in Ireland, deterrence is a more traditional tool used by tax administrations. Furthermore, the influence of personal norms and the level of trust in tax administration, perceptions of the

prevailing social norms are also important determinants of taxpayers’ compliance [15, p. 451, 470].

3. Methodology

3.1. Methodological framework

This article presents the results of empirical research aimed at identifying the causes of tax evasion (criteria) and describing the hierarchy of these criteria. The methodology we used is illustrated in Fig. 2.

The first step was to identify the key parameters that affect the decision-maker’s choices concerning tax evasion. Since the research literature on this specific area is rather scant, a brainstorming session was performed in order to map the total number of factors that could influence this kind of decision (see Fig. 3).

At the next stage, we designed a questionnaire comprising 37 pairwise comparisons on a 9-point Likert type scale. The final stage was the data elaboration and the calculation of the importance of each factor by using the analytic hierarchy process (AHP).

The AHP methodology allows us to measure both objective and subjective factors through pairwise comparisons from which proportional priorities result. Participants are asked to estimate the relative importance of criteria and sub-criteria. These estimates can be impressed numerically, graphically or verbally [20] (Table 1).

Table 1

How to complete the questionnaire

Crite- rion	Intensity of relative importance																	Crite- rion	
	A	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8		9

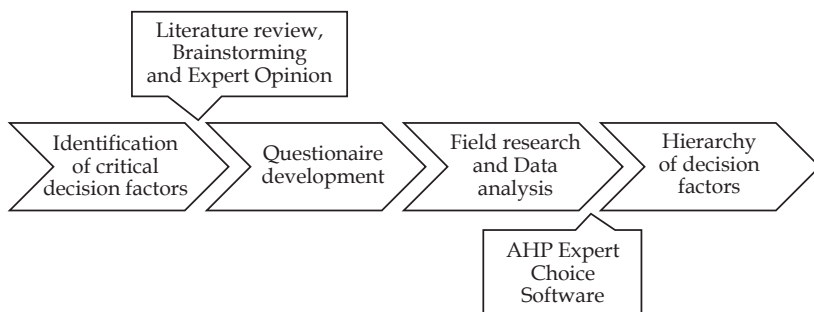


Fig. 2. AHP methodological framework development

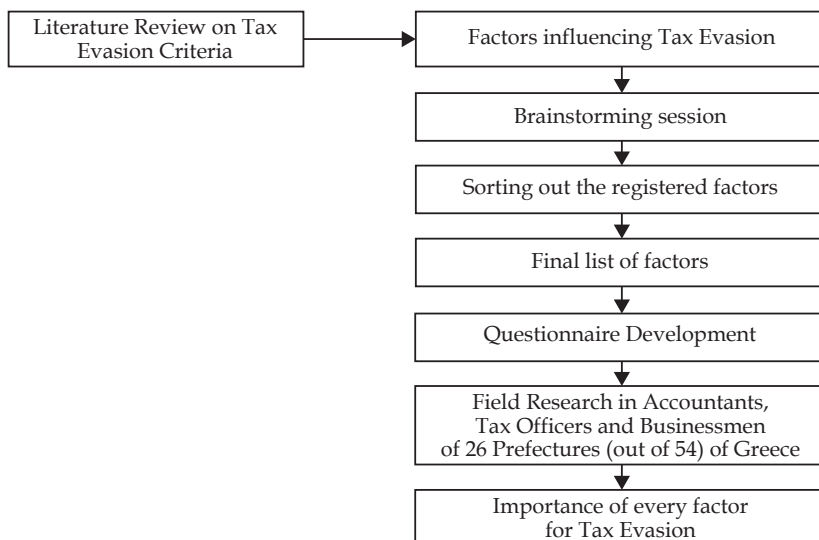


Fig. 3. Methodological framework

To express the comparisons of preferences, a nine-point intensity scale ('The Fundamental Scale of Absolute Numbers') was used. This stage ends with paired comparisons of criteria against the goal for importance: for example, if the participant selects 1, it means that both elements, A and B, contribute equally to the goal and are therefore of equal importance. If criterion A is awarded a score of 2–9, it means that criterion A is deemed more important than criterion B, with 2 meaning that the participant is slightly in favour of A, and 9, that A is judged of absolute importance and of highest significance compared to criterion B. All other values express intermediate importance of A over B. If the same situation applies to criterion B, then the explanation of intensity of importance is the same but this time for criterion B over A. Each pairwise comparison is used to generate ratios.

The AHP method has the ability to structure complex, multi-person, multi-attribute, and multi-period problem hierarchically. Pairwise comparisons of the element (usually alternatives and attributes) can be established by using the scale indicating the strength with which one element dominates over another one with respect to a higher-level element. This scaling process can then be translated into priority weights – scores [21, p. 421].

3.2. Mathematical background and functions of the AHP

The analytic hierarchy process uses mathematically based hierarchical decision models. The AHP method relies on the following three commonly accepted stages:

1. Since $i = 1, \dots, m$ are the criteria of the decision, their respective gravities W_1, \dots, W_m must be calculated;
2. For each criterion i , alternatives j should be compared, where $j = 1, \dots, n$ and their gravities determined (W_{ij} with respect to criterion i);
3. Finally, the total weight of alternatives r should be determined of W_j options over all criteria through vector equation $W_j = W_{1j}W_1 + W_{2j}W_2 + \dots + W_{mj}W_m$.

The alternatives are then categorized by resulting W_j vector, with the predominant option having the largest value W_j . The meaning of the hierarchical decision model must be defined and subsequently the process of decision-making with the use of the model will be explained. The AHP has a successful track record regarding its application in the wider area of business analysis [22, p. 373], following its introduction as multiple criteria decision-making (MCDM) methodology in the late 1970s [23]. The AHP is a multi-criteria method for decision-making and priorities ranking developed by Saaty. This method "combines subjective and objective estimations or perceptions, in an integrated framework which is based on scale ratios from pair comparisons" [24]. The judgments from the pairwise comparisons are made by experts or decision-makers; in combination with the AHP algorithm these judgements produce the final outcome.

The method is based on a series of pairwise comparisons of the existing data to determine so the relative priority of the alternatives. The criteria used to make the comparisons and the resulting hierarchy do not necessarily have to be numerical. It is possible and acceptable to use non-measurable, qualitative factors such as experience and subjective judgment. After the process is completed, the most important factors have the highest gravity coefficients (for more detail, see Saaty [25–27]).

3.3. Questionnaire and research sample

To investigate the causes of tax evasion and tax avoidance in Greece, we conducted an empirical survey among accountants, tax officers and businessmen in various provinces of Greece. The questionnaire consisted of 37 questions divided into five sections. Each section included a criterion with sub-criteria (see Table 2).

The survey involved accountants, tax officers and entrepreneurs from 26 out of 50 prefectures of Greece. The total number of tax officers who completed the questionnaires was 675; entrepreneurs, 1,357; and accountants, 757. The total number of questionnaires completed was 2,789 (for more detail on the sample, see Table 3).

Table 2

Causes of tax evasion and tax avoidance in Greece, according to the key stakeholders

Criteria	Sub-Criteria
Deficient education	Business ethics Taxation conscience ¹ Educational level Consistent taxpayers culture ²
Complexity of legislation	Frequent changes / Not application of laws ³ Law obscurity / 'Legal' exemptions Ignorance of the current tax legislation Bureaucracy
Opacity in public financial management	Wastage of public money Graft among public administrators Maladministration Lack of transparency in tax administration
Impunity for tax evasion	Lenient sentencing for tax evasion Corruption among tax collectors Deletion, tax 'amnesty' ⁴
Excessive taxation	High tax factors ⁵ Presumptive taxation Additional to regular taxation ⁶ Unfair tax scale

Note: ¹ The morality of paying taxes to the public. ² The culture of being consistent and not avoid or miss to pay taxes. ³ Some taxpayers violate the tax laws in order to evade taxes. ⁴ Tax evasion cases that should lead to tax offender punishment, after some time are deleted, without any penalty. ⁵ The tax rates are increasing whenever the public believes that is not able to collect the required amount of taxes. ⁶ The public announces "extra" taxation in order to achieve the required amount of taxes, which cannot be collected with regular taxes.

Table 3

Number of questionnaires by category of respondents and by Greek prefectures

Tax officers			Businessmen			Accountants		
1	Athens	153	1	Athens	104	1	Athens	113
2	East Attica	10	2	East Attica	12	2	East Attica	12
3	West Attica	7	3	West Attica	118	3	West Attica	56
4	Piraeus	12	4	Piraeus	64	4	Piraeus	13
5	Aetolia-Acarnania	21	5	Aetolia-Acarnania	45	5	Aetolia-Acarnania	21
6	Arta	15	6	Arta	31	6	Arta	22
7	Achaia	50	7	Achaia	50	7	Achaia	30
8	Grevena	13	8	Grevena	57	8	Grevena	20
9	Dodecanese	38	9	-		9	Dodecanese	35
10	Thesprotia	23	10	Thesprotia	51	10	Thesprotia	23
11	Ioannina	54	11	Ioannina	55	11	Ioannina	54
12	-		12	Kastoria	41	12	-	
13	Corfu	10	13	Corfu	45	13	Corfu	30
14	Cafalonia	17	14	Cafalonia	65	14	Cafalonia	31
15	Kilkis	12	15	Kilkis	36	15	Kilkis	15
16	Kozani	54	16	Kozani	182	16	Kozani	53
17	Lakonia	38	17	Lakonia	89	17	Lakonia	53
18	-		18	Corinthia	40	18	-	
19	Lefkada	9	19	Lefkada	52	19	Lefkada	19
20	Magnesia	18	20	Magnesia	34	20	Magnesia	25
21	Messinia	10	21	Messinia	15	21	Messinia	15
22	Preveza	12	22	Preveza	25	22	Preveza	22
23	Rethymno	30	23	-		23	Rethymno	30
24	Trikala	12	24	Trikala	50	24	Trikala	25
25	Pthiotis	19	25	Pthiotis	46	25	Pthiotis	25
26	Chalkidiki	38	26	Chalkidiki	50	26	Chalkidiki	15
	TOTAL	675		TOTAL	1357		TOTAL	757

4. Results

The questionnaires were processed with the help of the expert choice software program and the results are presented in the following tables. The significance of

each criterion sub-criterion in relation to the causes of tax evasion is specified. In addition, the prefectures where the maximum and the minimum values were registered are given in Tables 4, 5 and 6.

Table 4

Tax officers' evaluations of the significance of tax evasion criteria and sub-criteria

Causes of tax evasion and tax avoidance	Tax officers (675)				
	MAX	Prefecture	MIN	Prefecture	AVERAGE
Deficient education	0.181	Dodecanese Isl.	0.025	Piraeus	0.120
Business ethics	0.044	East Attica	0.005	Piraeus	0.019
Taxation morale	0.078	Dodecanese Isl.	0.009	Piraeus	0.044
Educational level	0.070	Ioannina	0.006	Piraeus	0.027
Consistent taxpaying culture	0.053	Rethymno	0.006	Piraeus	0.031
Complexity of legislation	0.431	Piraeus	0.102	Trikala	0.199
Frequent changes in legislation / Non-observance of laws	0.165	Piraeus	0.027	Trikala	0.073
Law obscurity / 'Legal' exemptions	0.090	Cefalonia	0.009	Trikala	0.050
Ignorance of the current tax legislation	0.062	Piraeus	0.006	Trikala	0.031
Bureaucracy	0.132	Piraeus	0.015	Lefkada	0.044
Opacity in public financial management	0.312	Piraeus	0.056	Corfu	0.160
Wastage of public money	0.082	East Attica	0.020	Lefkada	0.047
Graft among public administrators	0.124	Messinia	0.008	Trikala	0.041
Maladministration	0.079	Arta	0.015	Corfu	0.041
Lack of transparency in tax administration	0.101	Piraeus	0.007	Corfu	0.031
Impunity for tax evasion	0.333	Corfu	0.094	Piraeus	0.240
Lenient sentencing for tax evasion	0.119	Kilkis	0.016	Piraeus	0.074
Corruption of tax collectors	0.126	Magnesia	0.019	West Attica	0.076
Cases of tax evasion that go unpunished	0.137	Lefkada	0.044	Trikala	0.090
Excessive taxation	0.589	Trikala	0.139	Piraeus	0.281
Tax rises	0.376	Trikala	0.031	Arta	0.098
Presumptive taxation	0.073	Preveza	0.019	Piraeus	0.053
Introducing additional taxes	0.134	Preveza	0.023	Messinia	0.053
Unfair tax scale	0.199	Aetolia-Acarnania	0.021	Piraeus	0.077

Table 5

Businessmen's evaluations of the significance of tax evasion criteria and sub-criteria

Causes of tax evasion and tax avoidance	Businessmen (1.357)				
	MAX	Prefecture	MIN	Prefecture	AVERAGE
Deficient education	0.186	Achaia	0.036	Preveza	0.092
Business ethics	0.048	Achaia	0.008	Trikala	0.020
Taxation morale	0.059	East Attica	0.013	Preveza	0.026
Educational level	0.074	Achaia	0.004	Piraeus	0.023
Consistent taxpaying culture	0.052	Grevena	0.006	Preveza	0.023
Complexity of legislation	0.262	East Attica	0.058	Trikala	0.134
Frequent changes in legislation / Non-observance of laws	0.095	East Attica	0.010	Trikala	0.035
Law obscurity / 'Legal' exemptions	0.083	Achaia	0.012	Trikala	0.037
Ignorance of the current tax legislation	0.063	East Attica	0.004	Trikala	0.023
Bureaucracy	0.116	Preveza	0.018	Corinthia	0.039
Opacity in public financial management	0.291	Corinthia	0.118	Messinia	0.186

End of Table 5

Causes of tax evasion and tax avoidance	Businessmen (1.357)				
	MAX	Prefecture	MIN	Prefecture	AVERAGE
Wastage of public money	0.087	Lakonia	0.027	Chalkidiki	0.052
Graft among public administrators	0.098	Kilkis	0.019	Pthiotis	0.055
Maladministration	0.069	Lakonia / Aetolia-Acarmania	0.022	Athens	0.047
Lack of transparency in tax administration	0.066	Grevena	0.009	Preveza	0.032
Impunity for tax evasion	0.278	Piraeus	0.125	Trikala	0.221
Lenient sentencing for tax evasion	0.093	Pthiotis	0.023	Thesprotia	0.057
Corruption of tax collectors	0.140	Piraeus	0.048	Trikala	0.096
Cases of tax evasion that go unpunished	0.103	Chalkidiki	0.041	Ioannina	0.068
Excessive tax imposition	0.583	Trikala	0.130	East Attica	0.367
Tax rises	0.335	Trikala	0.042	East Attica	0.109
Presumptive taxation	0.105	Corfu	0.028	East Attica	0.068
Introducing additional taxes	0.150	Chalkidiki	0.031	East Attica	0.074
Unfair tax scale	0.179	Piraeus	0.029	East Attica	0.116

Table 6

Accountants' evaluations of the significance of tax evasion criteria and sub-criteria

Causes of tax evasion and tax avoidance	Accountants (757)				
	MAX	Prefecture	MIN	Prefecture	AVERAGE
Deficient education	0.300	Pthiotis	0.064	Messinia	0.111
Business ethics	0.045	East Attica	0.006	Grevena	0.019
Taxation morale	0.112	Pthiotis	0.016	Magnesia	0.034
Educational level	0.074	Pthiotis	0.010	Grevena	0.028
Consistent taxpaying culture	0.077	Pthiotis	0.010	Messinia	0.030
Complexity of legislation	0.251	Lefkada	0.070	Trikala	0.155
Frequent changes in legislation/ Non-observance of laws	0.113	Piraeus	0.002	Magnesia	0.049
Law obscurity / 'Legal' exemptions	0.068	Piraeus	0.010	Trikala	0.037
Ignorance of the current tax legislation	0.062	East Attica	0.004	Trikala	0.027
Bureaucracy	0.057	Achaia	0.019	Aetolia-Acarmania	0.042
Opacity in public financial management	0.246	Rethymno	0.053	Trikala	0.171
Wastage of public money	0.071	Dodecanese Isl.	0.014	Trikala	0.043
Graft among public administrators	0.076	Rethymno	0.009	Trikala	0.051
Maladministration	0.105	Magnesia	0.020	Piraeus	0.045
Lack of transparency in tax administration	0.069	Rethymno	0.003	Trikala	0.032
Impunity for tax evasion	0.405	Magnesia	0.054	Trikala	0.218
Lenient sentencing for tax evasion	0.087	Dodecanese Isl.	0.010	Trikala	0.053
Corruption of tax collectors	0.290	Magnesia	0.037	Trikala	0.093
Cases of tax evasion that go unpunished	0.145	Piraeus	0.007	Trikala	0.072
Excessive taxation	0.656	Trikala	0.142	Magnesia	0.345
Tax rises	0.430	Trikala	0.004	Magnesia	0.119
Presumptive taxation	0.116	Grevena	0.021	Piraeus	0.069
Introducing additional taxes	0.098	West Attica	0.010	Magnesia	0.057
Unfair tax scale	0.186	Grevena	0.022	East Attica	0.100

Table 4 shows the significance of the criteria and sub-criteria from the perspective of tax officers. The most significant, in their view, is 'Excessive taxation' (0.281), followed by 'Impunity for tax evasion' (0.240). 'Complexity of legislation' ranks third (0.199), followed by 'Opacity in public financial management' (0.160) while 'Deficient education' ranks last (0.120).

The maximum significance was given to the criterion 'Excessive taxation' in Trikala prefecture (0.589) while in Piraeus it was given the minimum (0.139). The criterion 'Impunity' reached its maximum significance (0.333) in Corfu and the minimum, in Piraeus (0.094). The criterion 'Complexity of legislation' was evaluated most highly in Piraeus (0.431) and most lowly in Trikala (0.102). The criterion 'Opacity in public financial management' received the maximum value in Piraeus (0.312) and the minimum value, in Corfu (0.056); criterion 'Deficient education', in Dodecanese Islands (0.181) and in Piraeus (0.025) respectively.

Table 5 shows the significance of the criteria and sub-criteria from the perspective of businessmen. 'Excessive taxation' is considered of highest significance (0.367), followed by 'Impunity' (0.221). 'Opacity in public financial management' ranks third (0.186), followed by 'Complexity of legislation' (0.134) while 'Deficient education' ranks last (0.092).

The maximum significance was given to the criterion 'Excessive taxation' in Trikala prefecture (0.583) and the minimum significance, in East Attica (0.130). To 'Impunity' the maximum value was given in Piraeus (0.278) and the minimum, in Trikala (0.125); to 'Opacity in public financial management', in Corinthia (0.291) and in Messinia (0.118), respectively. The criterion 'Complexity of legislation' was deemed most significant in East Attica (0.262) and least significant, in Trikala (0.058). 'Deficient education' was considered of maximum significance in Achaia (0.186) and the minimum significance, in Preveza (0.036).

Table 6 shows the significance of different criteria and sub-criteria from the perspective of accountants. 'Excessive taxation' is considered of highest significance

(0.345), followed by *impunity* (0.218). 'Opacity in public financial management' ranks third (0.171), followed by 'Complexity of legislation' (0.155) while 'Deficient education' ranks last (0.111).

'Excessive taxation' was given maximum significance in Trikala prefecture (0.656), and minimum in Magnesia (0.142); the significance of 'Impunity' was evaluated most highly in Magnesia (0.405) and most lowly in Trikala (0.054). 'Opacity in public financial management' was considered the most significant by respondents in Rethymno (0.246) and the least significant, in Trikala (0.053). 'Complexity of legislation' was evaluated most highly (0.251) in Lefkada while in Trikala it got the minimum significance (0.070). 'Deficient Education' was given maximum significance in Pthiotis (0.300) and minimum, in Messinia (0.064).

Table 4, 5 and 6 illustrate how different criteria and sub-criteria were evaluated by the three groups of respondents. The differences in their evaluations are shown in Table 7 and Figure 4. The biggest differences are found in the evaluations of criterion 'Excessive taxation' and sub-criterion 'High Tax factors': 0.450 and 0.376 among the tax officers, 0.453 and 0.293 among the businessmen, and 0.514 and 0.426 among the accountants, respectively. As far as sub-criteria are concerned, the biggest differences are characteristic of sub-criterion 'Unfair tax scale', with the difference between the evaluations of businessmen and tax officers, 0.039; accountants and tax officers, 0.023; businessmen and accountants, 0.016. The second sub-criterion with the highest differences in evaluations is 'Frequent changes in legislation / Non-observance of laws', with the difference between the evaluations of businessmen and tax officers, 0.038; between the evaluations of accountants and tax officers, 0.024; and between the evaluations of businessmen and accountants, 0.014. Sub-criterion 'Cases of tax evasion that go unpunished' ranks third in terms of differences: between tax officers and businessmen, 0.022; tax officers and accountants, 0.018; accountants and businessmen, 0.004. Sub-criterion 'Introducing additional taxes' was more signifi-

Table 7

Evaluation of sub-criteria and intergroup differences in the evaluation of sub-criteria's significance

Sub-Criteria	Tax Officers	Businessmen	Accountants	TO-BU	TO-AC	BU-AC
Business ethics	0.019	0.020	0.019	-0.001	0.000	0.001
Taxation morale	0.044	0.026	0.034	0.018	0.010	-0.008
Educational level	0.027	0.023	0.028	0.004	-0.001	-0.005
Consistent taxpaying culture	0.031	0.023	0.030	0.008	0.001	-0.007
Frequent changes in legislation / Non-observance of laws	0.073	0.035	0.049	0.038	0.024	-0.014
Law obscurity / 'Legal' exemptions	0.050	0.037	0.037	0.013	0.013	0.000
Ignorance of current tax legislation	0.031	0.023	0.027	0.008	0.004	-0.004
Bureaucracy	0.044	0.039	0.042	0.005	0.002	-0.003
Wastage of public money	0.047	0.052	0.043	-0.005	0.004	0.009
Graft among public administrators	0.041	0.055	0.051	-0.014	-0.010	0.004
Maladministration	0.041	0.047	0.045	-0.006	-0.004	0.002
Lack of transparency in tax administration	0.031	0.032	0.032	-0.001	-0.001	0.000
Lenient sentencing for tax evasion	0.074	0.057	0.053	0.017	0.021	0.004
Corruption of tax collectors	0.076	0.096	0.093	-0.020	-0.017	0.003
Cases of tax evasion that go unpunished	0.090	0.068	0.072	0.022	0.018	-0.004
Tax rises	0.098	0.109	0.119	-0.011	-0.021	-0.010
Presumptive taxation	0.053	0.068	0.069	-0.015	-0.016	-0.001
Introducing additional taxes	0.053	0.074	0.057	-0.021	-0.004	0.017
Unfair tax scale	0.077	0.116	0.100	-0.039	-0.023	0.016

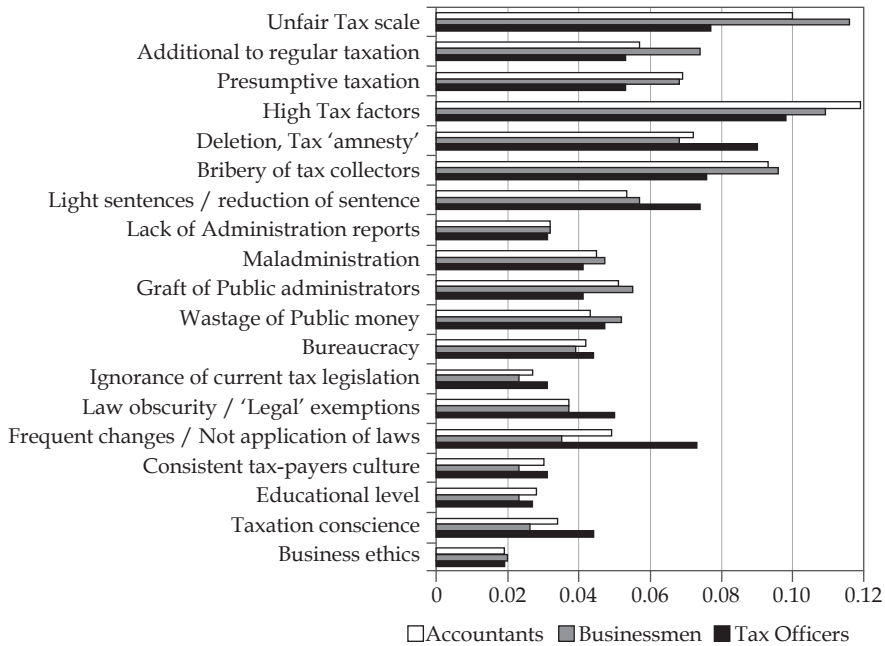


Fig. 4. Evaluation of sub-criteria and intergroup differences in the evaluation of their significance

cant for businessmen than for tax officers (difference 0.021); for accountants than for tax officers (0.004); and for businessmen than for accountants (0.017). Sub-criterion '*Lenient sentencing for tax evasion*' has the same values of differences in significance.

Evaluations of some of the sub-criteria (business ethics, education, taxpayer culture, ignorance of the current tax legislation, bureaucracy and some others) demonstrated very little or non-significant differences between the three groups of respondents; for all of these sub-criteria, the differences were below 0.010.

5. Conclusion

Progressive taxes, which meant that wealthier citizens had to pay more taxes than poorer people, were an English invention. Such tax policies are usually perceived by taxpayers as fairer than other types.

The Greek government should learn from the experience of other countries which had to deal with similar problems in taxation and tax evasion and have managed to achieve positive results.

As our study has shown, most respondents agree that *excessive taxation* is one of the major drivers of tax evasion, followed by *impunity for tax evasion*, *complexity of the legislation* and *opacity in public financial management*. The least significant cause of tax evasion, according to our respondents' opinions, is *deficient education*.

Some intergroup differences in evaluations were found regarding such sub-criteria as '*Unfair tax scale*' (the highest difference between the evaluations of businessmen and tax officers), '*Frequent changes in legislation/Non-observance of laws*', '*Cases of tax evasion that go unpunished*' and '*Corruption of tax collectors*'. This evidence points to the fact that there is mutual distrust between taxpayers and tax authorities.

It is surprising that in the country whose history goes back to Athenian democracy and Sparta and whose culture was influenced by such renowned pioneers in philosophy, art and sciences as Plato and Aristotle, the faults of the education system are deemed insignificant. In our view, it reveals a serious problem faced by the modern Greek society.

The usual ways to restrict and eventually eliminate tax evasion in the world consist in higher penalties, better organization of tax offices and control mechanisms and sometimes lower tax rates. In Greece, however, these measures turned out to be insufficient, which means that we need a new, more effective approach to taxation. There are taxes, such as VAT, which encourage both parties to cooperate in addressing the problem of tax evasion. The solution is to provide incentives for taxpayers to control their fellow taxpayers trying to evade taxes. There are also proposals for complete abolition of the income tax on the grounds that this tax creates incentive problems in the economy, has very high administrative costs and is an ideal field for tax evasion.

Furthermore, the objective criteria of income or real estate objective values constitute effective ways of curbing tax evasion but involve many risks because they lead to injustices.

A revolutionary but controversial proposal could be to let private companies deal with tax collection. This system is old and well-known in Greece. It helps address such problems as the lack of efficiency of the tax system, the lack of taxpayers' motivation, and corruption in the public sector.

International cooperation is also needed to curb tax evasion and tax avoidance. First and foremost, however, we need to establish a new trust between the state and citizens. Citizens must feel that they participate in decision-making and that the state is not distant or hostile towards them. It may also help if the state improves the quality of public services. Taxpayers may derive utility from payment of taxes, when the state returns the tax value in the form of services and social benefits, provided that taxpayers know exactly how their taxes have been spent. Some taxpayers could become responsible for public assets such as schools and hospitals, which would give them satisfaction and improve their tax discipline. Finally, education and different forms of moral encouragement of tax compliance can play an important role.

References

1. Rapanos V., Kaplanoglou G. Taxation and Economic Development: The case of Greece. In: *Competitiveness for development: Policy proposals*. Athens: Greek Banking Union; 2014, pp. 609–637.
2. Schneider F. (2015). *Size and development of the Shadow Economy of 31 European and 5 Other OECD countries from 2003 to 2015: Different developments*. January 20, 2015. Available at: <https://pdfs.semanticscholar.org/088a/96973734cb625d524b93bd014cc3eeeb4165.pdf?ga=2.6578162.1574531576.1594317826-2012377774.1577261936>.
3. Vousinas G. Shadow economy and tax evasion: The Achilles heel of Greek economy. Determinants, effects and policy proposals. *Journal of Money Laundering Control*. 2017;20(4):386–404. DOI: [10.1108/JMLC-11-2016-0047](https://doi.org/10.1108/JMLC-11-2016-0047).
4. Durant W. *The Life of Greece*. Mishawaka, IN, U.S.A: Simon and Schuster publishing; 1939.
5. Allais M. *L'Impot sur le Capital et la Reforme Monetaire*. Paris: Herman; 1988.
6. Kinsey K.A. Survey data on tax compliance: a compendium and review. In: *Taxpayer Compliance Project working Paper 84-1*. Chicago, IL: American Bar Foundation; 1984.
7. Weigel R.H., Hessing D.J., Elffers H. Tax evasion research: a critical appraisal and theoretical model. *Journal of Economic Psychology*. 1987;8:215–235. DOI: [10.1016/0167-4870\(87\)90021-3](https://doi.org/10.1016/0167-4870(87)90021-3).
8. Loftus R.F. To file per chance to cheat. *Psychology today*. 1985;(April):35–39.
9. Mundell R., Baldassarri M., Hruška D., Winstone J. *Debt Deficit And Economic Performance*. Palgrave, Macmillan, U.K.; 1993. DOI: [10.1007/978-1-349-22919-2](https://doi.org/10.1007/978-1-349-22919-2).
10. Alstadsaeter A., Johannesen N., Zucman G. *Tax Evasion and Tax Avoidance*. Cambridge, MA; 2018. Available at: <https://pdfs.semanticscholar.org/06a2/9942489c259d425427ed3fea130659b33ed8.pdf?ga=2.75651605.1033751869.1594487117-2012377774.1577261936>.
11. Çetin Gerger G., Gerçek A., Taskın C., Bakar F., Güzel S. Determining the Factors that affect Taxpayers' Perspective on Tax Administration: Research in Turkey. *International Journal of Economics and Finance Studies*. 2014;6(1):18–28. Available at: http://www.sobiad.org/eJOURNALS/journal_IJEF/archives/IJEF-2014_1/gunes_cetin.pdf.
12. Kanbiro Orkaido Deyganto. Factors Influencing Taxpayers' Voluntary Compliance Attitude with Tax System: Evidence from Gedeo Zone of Southern Ethiopia. *Universal Journal of Accounting and Finance*. 2018;6(3):92–107. DOI: [10.13189/ujaf.2018.060302](https://doi.org/10.13189/ujaf.2018.060302).
13. Kiow T.S., Salleh M.F., Md Kassim A.A. The Determinants of Individual Taxpayers' Tax Compliance Behaviour in Peninsular Malaysia. *International Business and Accounting Research Journal*. 2017;1(1):26–43. Available at: <https://www.um.edu.my/library/oar/handle/123456789/45150>.
14. Razieh Tabandeh, Mansor Jusoh, Nor Ghani Md. Nor, Mohd Azlan Shah Zaidi. Estimating Factors Affecting Tax Evasion in Malaysia: A Neural Network Method Analysis. *Transformasi Ekonomi dan Sosial Ke Arah Negara Maju*. 2012;7:1524–1535. Available at: https://www.ukm.my/fep/perkem/pdf/perkemVII/PKEM2012_5D4.pdf.
15. Walsh K. Understanding Taxpayer Behaviour – New Opportunities for Tax Administration. *The Economic and Social Review*. 2012;43(3):451–475. Available at: <https://www.revenue.ie/en/corporate/documents/research/understanding-taxpayer-behaviour.pdf>.
16. Windrobe R. *Tax Evasion and Trust*. Transition Economics Research Forum Reports (TERF). London, ON: Department of Economics, University of Western Ontario; 2001. Available at: <https://ir.lib.uwo.ca/cgi/viewcontent.cgi?article=1003&context=terf>.
17. Diakomihalis M. *Reasons for Tax Evasion and Tax Avoidance in Greece: A Research in Tax Officers, Businessmen and Accountants*. Athens: Diplografia Publishing; 2019.
18. Balatsky E.V., Ekimova N.A. The Impact of Tax Reforms on the Behaviour of Economic Agents (Indirect Taxation in Russia and the USA). *Journal of Tax Reform*. 2019;5(2):129–147. DOI: [10.15826/jtr.2019.5.2.064](https://doi.org/10.15826/jtr.2019.5.2.064).
19. Etzioni A. Tax Evasion and Perceptions of Tax Fairness: A Research Note. *The Journal of Applied Behavioral Science*. 1986;22(2):177–185. DOI: [10.1177/002188638602200209](https://doi.org/10.1177/002188638602200209).
20. Martin J. *Design of Man-Computer Dialogues*. New York: Prentice Hall, Englewood Cliffs; 1973.
21. Yusuff R.M., Yee K.P., Hashmi M.S.J. A preliminary study on the potential use of the analytical hierarchical process (AHP) to predict advanced manufacturing technology (AMT)

implementation. *Robotics and Computer-Integrated Manufacturing*. 2001;17(5):421–427. DOI: [10.1016/S0736-5845\(01\)00016-3](https://doi.org/10.1016/S0736-5845(01)00016-3).

22. Diakomihalis M., Stefanidaki E. Cruise Ship Supply Chain: A field study on outsourcing decisions. *International Journal of Decision Sciences, Risk and Management*. 2011;3(3/4):369–383. DOI: [10.1504/IJDSRM.2011.046162](https://doi.org/10.1504/IJDSRM.2011.046162).

23. Saaty T.L. A scaling method for priorities in hierarchical structures. *Journal of Mathematical Psychology*. 1977;15(3):234–281. DOI: [10.1016/0022-2496\(77\)90033-5](https://doi.org/10.1016/0022-2496(77)90033-5).

24. Saaty T. *The Analytic Hierarchy Process*. New York: McGraw-Hill Co.; 1980.

25. Saaty, T.L. *The Seven Pillars of the Analytic Hierarchy Process*. August, ISAHP, Kobe Japan; 1999.

26. Saaty T. *Multicriteria Decision Making: The Analytic Hierarchy Process*. New York: McGraw-Hill; 1980.

27. Saaty T.L. That is not the analytic hierarchy process: what the AHP is and what it is not. *Journal of Multicriteria Decision Analysis*. 1997;6(6):324–335. DOI: [10.1002/\(SICI\)1099-1360\(199711\)6:6<324::AID-MCDA167>3.0.CO;2-Q](https://doi.org/10.1002/(SICI)1099-1360(199711)6:6<324::AID-MCDA167>3.0.CO;2-Q).

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