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The Autonomous Taxation of Corporate Expenses in Portugal

Empirical evidence of the Portuguese chartered accountants' perceptions of corporate taxation

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Abstract: Portuguese corporate income tax has a special feature rarely seen in other countries. Autonomous taxes are levied on an extensive set of corporate expenses, irrespective of corporate profitability. Fiscal revenue from the autonomous taxation of expenses comprises about 12 % of corporate income tax receipts, which illustrates its relevance for the tax authorities and the corporate world. As autonomous tax rules are usually interpreted and applied to certain corporate expenses by chartered accountants (CAs) when computing income tax liabilities and filling in tax returns, the purpose of this paper is to present an empirical study of the perceptions of Portuguese CAs regarding key dimensions of autonomous taxation of expenses (ATE), as these influence corporate tax management. Using a sample of 665 CAs surveyed, and applying factor analysis, the paper concludes that tax complexity, tax compliance and tax planning are the main dimensions of ATE perceived by respondents. Besides the corporate income tax impact on fiscal management, new layers of complexity, planning opportunities and compliance costs are perceived to be added by ATE. Additionally, by applying cluster analysis, the paper finds that sociodemographic characteristics of CAs (e. g. age, gender, professional environment, level of expertise) generate clusters of CAs with different perceptions of the role and consequences of ATE in the management of corporate tax affairs.

Keywords: autonomous taxation of expenses, tax complexity, tax planning, tax compliance, Portugal

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1 Introduction

Corporate income tax (CIT) influences company management in several ways (e. g. investment and financing policies, the timing of transactions, tax auditing and litigation procedures). Accountants¹ are key professionals in applying CIT. As it is known, corporate income tax is levied on the difference between recognized revenues and costs, adjusted by fiscal rules. Book-tax divergence is quite common in areas such as depreciation, impairments, fair value or international flows of dividends, calling for accounting and tax expertise (Brealey, Myers, & Allen, 2014; Hanlon & Heitzman, 2010; Martins & Taborda, 2017).

Portuguese corporate income tax has a special feature rarely seen in other countries. Autonomous taxes are levied on an extensive set of corporate expenses, irrespective of corporate profitability (Martins et al., 2018; Morais, 2007; Nabais, 2018). Fiscal revenue from the autonomous taxation of expenses

¹ Also referred to in the international literature as tax professionals, tax advisors, tax practitioners or tax consultants.

(ATE) comprises about 12% of corporate income tax receipts, which illustrates its relevance for the tax authorities and the corporate sector. ATE began in 1990, applied only to confidential or non-documented expenses. However, it has shown continuous growth in the set of expenses subject to such a special type of taxation inserted in the CIT Code.

Autonomous tax rules are usually interpreted and applied to corporate expenses by Portuguese chartered accountants (CAs) when computing income tax liabilities and filling in tax returns. The purpose of this paper is to present an empirical study of the perceptions of Portuguese CAs regarding key dimensions of ATE, as they influence corporate tax management.

Accountants' perceptions of the tax system have been researched by some authors, since CAs represent individuals or corporations in the process of tax compliance (Borrego, Lopes, & Ferreira, 2016; Coolidge & Ilic, 2009; Dâmaso & Martins, 2015; Fatt & Ling, 2008; Groen, 2017; Hamid, 2013; Long & Basoglu, 2016; Manaf, Udin, Ishak, & Rahman, 2013; Nwobu, Faboyede, & Onwuelingo, 2015; Pedersen et al., 2013; Singh & Sharma, 2007; Stephenson, 2006; Yong & Lovich, 2013). The "dual" nature of Portuguese CIT (taxing not only profits but also certain expenses) offers a research opportunity to evaluate how CAs perceive the impact of ATE on corporate tax management. To the best of our knowledge, no prior study has analysed how accounting professionals perceive the effects of such a specific feature of corporate taxation.

In the last few years, the Portuguese CAs have been confronted with frequent changes in ATE rules, an indicator of complexity. Moreover, the number of legal disputes in Portuguese Courts and in the Tax Arbitration Centre (CAAD)^{2,3} suggests an excessive level of litigation related to ATE.

Using a sample of 665 CAs surveyed and applying factor analysis, the paper concludes that tax complexity, tax compliance, and tax planning are the main dimensions of ATE understood by respondents. This very specific and quite unique feature of the Portuguese corporate tax code is seen as a significant influence on such important areas of business taxation. Besides the corporate income tax impact on fiscal management, new layers of complexity, planning opportunities and compliance costs are seen to be added by ATE.

² Arbitration in tax matters, as an alternative to judicial resolution of conflicts in the tax area, was introduced into Portuguese law in 2011.

³ The main role of CAAD is to avoid and prevent tax justice delays from becoming a disincentivizing factor for investment in Portugal (Villa-Lobos, 2016).

Additionally, by applying cluster analysis, the paper finds that sociodemographic characteristics of CAs (e. g. age, gender, professional environment, level of expertise) generate clusters of CAs with different perceptions of the role and consequences of ATE in the management of corporate tax affairs.

As many countries face budgetary pressure, ATE could eventually be adopted by other jurisdictions. This paper offers evidence regarding the legal and economic consequences of ATE through the perceptions of experts dealing with a particular type of business tax. Our results are relevant to policymakers, tax authorities and the corporate sector.

The paper is organized as follows. Section 2 offers a literature review of accountants' perceptions regarding tax matters, and also briefly describes Portuguese ATE. Section 3 presents the research design and methodology. The results are presented and analysed in Section 4. Section 5 concludes.

2 Background

2.1 Accountants' perceptions of tax issues: A literature review

Tax compliance is influenced by many determinants. The pioneering work of Allingham and Sandmo (1972), known as the Traditional Tax Evasion Theory (A-S theory), identified the tax burden, the level of income, the probability of auditing and tax penalties as determinants of tax compliance. According to this model, taxpayers' base decisions on a purely rational choice, comparing the costs and benefits in order to comply with tax laws. Higher levels of income and tax rates increase the gains of noncompliance. Stronger penalties and frequent audits increase compliance.

The A-S model is commonly used as a starting point in explaining the process of tax compliance. But pure economic rationality is seen as insufficiently explanatory and is a case for including other variables in order to justify observed levels of compliance. Thus, models of tax compliance have been developed by introducing sociological and psychological factors, aiming to explain taxpayers' behaviour based on variables such as age, gender, education, income level, income source, occupation, peer influence, fairness and tax morale (Degl'Innocenti & Rablen, 2017; Hartl, Hofmann, Gangl, & Hartner-Tiefenthaler, 2015; Poppelwell, Kelly, & Wang, 2012; Swistak, 2016).

Several studies conclude that younger taxpayers have higher levels of non-compliance than older ones and that men evade more than women. Employees evade less than self-employed persons, while people with higher incomes evade

more than those with lower incomes (Alm, Jackson, & McKee, 1992; Alm & Torgler, 2006, 2012; Blaufus, Bob, Hundsdorfer, Kiesewetter, & Weimann, 2013; Chau & Leung, 2009; Devos, 2008; Fischer, Wartick, & Mark, 1992; Jackson & Milliron, 2002; Niemirowski, Baldwin, & Wearing, 2003; Sá, Martins, & Gomes, 2014; Spicer & Becker, 1980).

Some authors analysed CAs perceptions of tax issues, since the role of professionals makes a vital contribution to the process of voluntary tax compliance (Ayres, Jackson, & Hite, 1989; Erard, 1993; Hite & McGill, 1992; Tan & Sawyer (as cited in Faridy *et al.*, 2014); Berle 2012; Manaf *et al.* 2013; Palil, Akir, & Ahmad 2013; Abreu 2015; Nwobu *et al.* 2015; Mustapha & Obid 2015; Groen 2017; Borrego, Lopes, & Ferreira 2017; Biondi 2017).

These studies focused on the impact of the accountant's role in tax compliance and reached different conclusions. Some studies found that the use of CAs decreases tax noncompliance; higher levels of tax knowledge reduce the propensity to engage in risky avoidance strategies. On the other hand, other studies concluded that using CAs increases noncompliance. Ayres *et al.* (1989) argue that tax knowledge and professional experience give rise to strategies favouring CAs' customers.

Another line of research highlighted technical determinants, such as tax complexity, as important issues in the tax compliance context (Tran-Nam, 2015). These studies conclude that tax professionals when in complex and ambiguous situations, have a predisposition to plan aggressively for lower tax burdens (Borrego *et al.*, 2017).

Avi-Yonah (2011) and Tran-Nam and Evans (2014) emphasized that the perception of tax complexity has several consequences for compliance. Complexity is associated with increased levels of noncompliance, higher compliance costs, and greater use of tax professionals.

In many countries, accountants have gradually replaced taxpayers in compliance tasks. As a result, perceptions and attitudes of these professionals have come to influence compliance levels (Borrego *et al.*, 2017; Devos, 2012; Gutman, 2012; Kang, 2018; Martins, 2019; Tarmidi, 2019).

Authors tend to divide tax complexity into two dimensions, the legislative (e. g. extensiveness of tax law, frequency of changes, interpretative uncertainty); and the administrative (e. g. number of tax returns, frequency of payments, availability of electronic channels) (Borrego *et al.*, 2017; Rumina, Balandina, & Bannova, 2015; Tran-Nam, Evans, Krever, & Lignier, 2016).

Tax professionals perceive tax systems as having a high level of complexity (Borrego *et al.*, 2017; Lopes, 2012; Mckerchar, 2005). The majority of studies about CA perception of complexity and its impact on tax compliance points out that they can use tax complexity and their knowledge of avoidance schemes,

or aggressive tax planning, in order to benefit corporate or individual clients (Erard, 1993; Stephenson, 2007). On the contrary, Borrego et al. (2017) conclude that even if the perception of tax complexity by CAs is high, they prefer not to engage in aggressive tax planning due to fear of losing customers.

In Portugal, CAs play an important role in applying the CIT and in the assessment of Autonomous Taxation of Expenses (ATE), a special feature of Portuguese corporate income tax. CAs are responsible for recording expenses as well as for applying correct ATE rates, which could impact on tax complexity and tax compliance. This paper aims to explore empirical evidence as regards the legal and economic consequences of ATE taxation, through the perceptions of CAs. In the next section, the role of ATE in the tax system will be analysed from different perspectives.

2.2 Autonomous taxation in Portugal: Revenue, litigation and compliance

The concept of “autonomous taxation” was created in Portugal in 1990^{4,5}, and at that time only confidential or undocumented expenses were taxed at a rate of 10 %. Then, in 2000⁶ ATE was extended, as well as tax rates been increased.

Nowadays, the tax base of ATE is quite large, including non-documented expenses (taxed at a rate of 50 %; or 70 %, in the case of entities exclusively or partially exempted from income tax), expenses related to vehicles (10 %, 27.5 % or 35 %, according to the type of fuel); representational expenses (10 %); payments made to entities resident in low tax jurisdictions (35 % or 55 %); allowances and travelling costs incurred by employees (5 %); costs with compensation to managers or board members (35 %); costs with bonus and other variable remunerations paid to managers (35 %); profits distributed to entities exclusively or partially exempt from income tax (23 %)⁷. Furthermore, ATE tax rates increase by ten percentage points if a company incurs tax losses.

In Portugal, the ATE tax burden increased in relation to the sum of corporate income tax, because taxing autonomously expenses is the simplest mean of

⁴ Based on article 4 of Decree-Law no. 192/90 of June 9.

⁵ Although there was an “extraordinary tax on certain corporate expenses”, approved by Decree-Law N.º 119-A / 83 of February 28, 1983, justified with a view to obtaining the necessary revenues, in the most equitable way possible, and as an instrument to fight tax evasion.

⁶ By Law 30-G/00, of December 29.

⁷ In 2016, an optional regime was also set up to encourage tangible fixed assets revaluation, with a special autonomous taxation of 14 %, on the Revaluation Reserve created. This amount was payable by companies which had opted for such a revaluation regime, from 2016 to 2018.

collecting business tax revenues. Companies pay autonomous taxes even if they suffer tax losses.

Table 1 shows the increase in the tax burden of ATE revenues from 2005 to 2016.

Table 1: CIT and ATE revenues – Portugal (2005–2016) – in EUR millions.

Year	2005	2016
Assessed CIT	3,103	4,291
CIT variation	–	+38.5 %
Autonomous taxation (ATE)	198	492
ATE variation (%)	–	+148.49 %
Corporate statutory rate	25 %	21 %
ATE/Assessed CIT revenue	6.4 %	11.47 %

Source: Adapted: AT http://info.portaldasfinancas.gov.pt/pt/dgci/divulgacao/estatisticas/estatisticas_ir/.

Table 1 shows an increase in the ATE tax burden, from EUR 198 million in 2005 to EUR 492 million in 2016. In the same period, ATE grew from 6.4 % to 11.47 % of assessed CIT, showing its relevance in terms of tax revenue.

However, ATE has been at the centre of many tax conflicts in the Portuguese Tax Courts and in the Administrative and Tax Arbitration Centre (CAAD).⁸ Table 2 shows the number of tax disputes decided in the CAAD in the last few years.

From a total of 3 391 tax cases presented to CAAD since 2012, a total of 246 tax situations are related to ATE.

Figure 1 reveals the percentage of ATE tax conflicts out of the total of corporate income tax conflicts, in Portugal.

Almost 32 % of ATE tax disputes out of the total number of tax conflicts could be an indicator of the level of tax compliance costs, as shown by Figure 1.

The costs of ATE tax litigation incurred by the tax authority and taxpayers are high. In 2016, from the available data, as can be seen in Figure 2, the arbitration fees were almost 400,000 EUR⁹ and in 2018 almost 300,000 EUR¹⁰.

The high tax burden of ATE on the sum of corporate tax revenues and the increase in ATE tax conflicts justifies the study of the role of ATE in the tax system. Furthermore, it seems relevant to identify how CAs perceive the dimensions of ATE and its determinants in the process of tax compliance.

⁸ CAAD was introduced into Portuguese legal arbitration relating to tax matters as an alternative to judicial resolution of conflicts in the tax area. We have chosen CAAD because data availability for analysis.

⁹ Data analysed in the CAAD procedures available in <https://www.caad.org.pt/tributario>.

¹⁰ Data analysed in the CAAD procedures available in <https://www.caad.org.pt/tributario>.

Table 2: Tax cases by tax typology in CAAD – 2012–2018^a.

Tax typology	Total cases
Taxes on corporate income	
CIT (Corporate Income Tax)	769
Central Government surcharge (Derrama Estadual)	111
Local Government surcharge (Derrama Municipal)	134
Tax benefits	80
Tax losses deduction	5
Tax corrections	24
Corporate autonomous taxation	246
Personal Income Tax (IRS)	437
Value-Added Tax (VAT)	328
Property taxes	1,802
Other taxes	36
Total cases in CAAD	3,391

Source: Adapted from CAAD in <https://www.caad.org.pt/tributario>.

^aTax cases by tax typology in CAAD in the period of 2012–2018 (Last access in 07-09-2018). Info available on <https://www.caad.org.pt/tributario>.

Figure 1: Corporate income tax disputes in CAAD – 2012–2018 (%).

Source: Adapted from CAAD in <https://www.caad.org.pt/tributario>

To evaluate ATE tax perceptions, we propose to answer the following research questions: What are the perceived tax dimensions of ATE? Is ATE too complex to apply? What is the main role of ATE in the process of tax compliance? Is ATE subject to tax planning?

Figure 2: Costs incurred by the Portuguese Tax Authority and Taxpayers related to corporate ATE cases in CAAD – 2012–2018 – in EUR^a.

Source: Adapted from CAAD in <https://www.caad.org.pt/tributario>

^aDoes not include the initial arbitration fee.

3 Research methodology

In this section, we present the research methodology which includes hypotheses, data collection, and sample characterization.

3.1 Research hypotheses

According to the literature review, there are several determinants of CAs perceptions concerning tax issues, such as demographic, professional and technical factors.

3.1.1 Hypothesis 1 – Demographic factors

Age and gender seem to have an impact on tax perceptions and attitudes. Niemirowski et al. (2003) highlight the fact that younger taxpayers are more noncompliant than older ones. Older taxpayers have acquired deeper tax knowledge associated with higher levels of compliance. Women are more compliant than men (Devos, 2008). This study sets out to ascertain whether these differences between taxpayers are also found among Portuguese CAs regarding ATE. We intend to evaluate whether socio-demographic factors, measured by age and gender, impact on Portuguese CA perceptions of ATE.

H1: There is a relation between demographic factors and the perception of Portuguese CAs regarding ATE.

H1.1 (age):

There are differences in the perception of Portuguese CA about complexity, planning opportunities and compliance related to autonomous taxation, depending on their age.

H1.2 (gender):

There are differences in the perception of Portuguese CA about complexity, planning opportunities and compliance related to autonomous taxation, depending on their gender.

3.1.2 Hypothesis 2 – Professional factors

Work experience of CAs and their level of tax knowledge have also appeared in the literature as factors influencing perceptions regarding taxes. Experienced tax professionals exhibit greater knowledge which acts as a guide to managers in tax planning strategies (Borrego et al., 2017; Groen, 2017; Manaf et al., 2013). Moreover, to enhance efficient service, tax professionals need to be aware of new developments in tax rules (Berle, 2012; Palil et al., 2013). The tax literature also highlights the fact that company employees are more compliant than self-employed ones (Mustapha & Obid, 2015; Sá et al., 2014). We believe that years of professional experience, levels of tax knowledge and their work environment/accounting practice are reflected in Portuguese CA attitudes.

H2: There is a relation between professional factors and the perception of ATE by Portuguese CAs.

H2.1 (number of years of professional experience)

There are differences in Portuguese CA perceptions of the complexity, tax planning and tax compliance of autonomous taxation, depending on the CA's number of years of professional experience.

H2.2 (level of tax knowledge):

There are differences in Portuguese CA perceptions of the complexity, tax planning and tax compliance of autonomous taxation, depending on the CA's level of tax knowledge.

H2.3 (accountant activity practice):

There are differences in Portuguese CA perceptions of the complexity, tax planning and tax compliance of autonomous taxation, depending on the CA's accounting practice.

3.1.3 Hypothesis 3 – Technical factors

Studies emphasise technical features that impact on CAs' perceptions about the tax system. Perceptions regarding the tax burden are influenced by changes in tax rates or tax bases (Blaufus et al., 2013; Borrego et al., 2017). Tax penalties affect corporate tax compliance levels (Poppelwell et al., 2012; Swistak, 2016). We believe that technical factors, measured by the corporate expenses subject to ATE, impact on Portuguese CA perceptions of ATE.

H3: There is a relation between technical factors and the perception of Portuguese CAs with regard to ATE.

H3.1 (corporate expenses subject to autonomous taxation):

There are differences in Portuguese CA perceptions regarding the complexity, planning opportunities and compliance levels of ATE, depending on the type of expenses subject to autonomous taxation.

3.2 Survey design and administration

A questionnaire was developed in order to test our research hypothesis. This research tool was used in similar studies in the USA, Australia, Malaysia, India, New Zealand, and Portugal (see Borrego et al., 2017; Hamid, 2013; Manaf et al., 2013; Pedersen et al., 2013; Singh & Sharma, 2007; Stephenson, 2006; Tomasic & Pentony, 1990).

In order to improve the survey, a pre-test study was undertaken in April 2018, with interviews conducted with ten Portuguese CAs. The questionnaire was ready by May 2018.

The questionnaire was divided into three parts¹¹. The first and second parts included questions on sociodemographic, professional and technical issues, such as age, gender, professional experience, tax knowledge, professional practice, and expenses often subject to corporate ATE in the CAs usual recording activity. In the third part, the questions focused on tax perceptions of ATE and its role in corporate taxation.¹² This part also included questions about the interpretation of ATE rules, preparation of accounting and tax information, legal disputes, influence of ATE on companies, small and medium-sized enterprises (SMEs)' tax burden, among others.

¹¹ See Appendix 1.

¹² CAs responded according to a 7-point Likert scale, ranging from strongly disagree to strongly agree.

In order to collect the data, 2,145 email addresses (with the access link to the online survey) were sent randomly according to the geographical area¹³ to Portuguese CA's¹⁴, in the period from 15th May to July 16, 2018. At the same time, 1,000 paper-based surveys were sent to tax training sessions of the Order of Portuguese Chartered Accountants (OCA).

Of 3,145 questionnaires sent, 665 valid responses were obtained¹⁵. Table 3 shows a response rate of 21.15 %, which is in line with other studies (Devos, 2012; Evans, 2003; Evans et al., 2014; Tran-Nam, Evans, & Lignier, 2013).

Table 3: Sample and response rate^{a,b} (frequency and percentage).

Sample statistic (selected Portuguese CA)	Sample statistic (%)	Real sample (Portuguese CA responding)	Response rate (%)
3.145	100.00	665	21.15

^aTwo warnings were issued to chartered accountants when we sent the online survey or handed out the paper survey: only accountants who were practising their profession could respond (since there are chartered accountants who are not in active service, and these were not our audience-target); moreover, if chartered accountants had already responded to the online survey, they could not repeat it on paper, and vice versa.

^bIn the online survey, chartered accountants were informed about data collection as follows: “This survey is anonymous. The survey responses record does not contain any information about your identity, unless some question asks for an identification and you provide it”.

Table 4 presents the sample characterization.

The sample relates to Portuguese CAs with very diversified ages. The maximum age is 86, the minimum is 22 and the mean age of Portuguese CA survey respondents is 47.14. Table 4 also shows that in our sample 349 respondents are female (52.5 %), while 316 are male (47.5 %).

In relation to professionals, the sample presents three levels of years of professional experience. 19.1 % of the respondents have up to 10 years’ professional experience, 34.4 % have between 11 and 20 years and 46.5 % have over 20 years.

¹³ Accountants professionals email addresses available in <https://www.gescontact.pt/> and in <http://www.pai.pt/>.

¹⁴ In March 2018 there are 69,626 active Portuguese Chartered Accountants.

¹⁵ Sample size was assessed using power analysis with the software G*Power, Version 3.1.9.2. In a post hoc analysis of a two-sided test with $\rho_0 = 0.95$, $\rho = 0.5$, sample size 665, and $\alpha = 0.05$ the exact power is 1.0000000. The results are in line with Lakens (2013), Faul, Erdfelder, Buchner, and Lang (2009) and Cohen (1988).

Table 4: Sample characterization (frequencies and percentages).

Socio-demographic characteristics	Frequency	Percentage
Age		
Up to 29 years old	33	4.96 %
≥30 to 54 years old	456	68.57 %
≥55 to 64 years old	122	18.35 %
≥65 years old	54	8.12 %
Gender		
Female	349	52.5 %
Male	316	47.5 %
Professional characteristics	Frequency	Percentage
Professional experience as an accountant		
Up to 10 years	127	19.1 %
> 11 to 20 years	229	34.4 %
> 20 years	309	46.5 %
Tax knowledge level		
Very low	—	—
Low	4	0.6 %
Moderately low	14	2.1 %
Neither low nor high	106	15.9 %
Medium	271	40.8 %
High	233	35 %
Very high	37	5.6 %
Activity practice		
Employed	311	46.8 %
Self-employed not integrated into a professional body	161	24.2 %
Self-employed integrated into a professional body	93	14 %
Employed and self-employed integrated into a professional body	19	2.9 %
Employed and self-employed not integrated into a professional body	73	11 %
Employed and self-employed integrated and not integrated into a professional body	5	0.8 %
Self-employed integrated and not integrated into a professional body	3	0.5 %

Those CAs surveyed consider that their level of tax knowledge is mostly “medium” or “high”.

CAs perform their activity in a different work environment. For example, 46.8 % work as employees; 24.2 % are self-employed.

4 Data analysis and results

To investigate the ATE dimensions perceived by Portuguese CAs, first, we applied an Exploratory and a Confirmatory Factor Analysis. Secondly, we identified the determinants associated with Portuguese CA perceptions regarding the ATE role in tax compliance. Finally, to test our research hypotheses, a bivariate and a cluster analysis based on sociodemographic characteristics of CAs were applied. We have used Version 20 of the software Statistical Package for the Social Sciences (SPSS) and Version 25 of the software AMOS.

4.1 The dimensions of ATE perceived by Portuguese CAs: Factor analysis

We applied an Exploratory Factor Analysis (EFA) to identify the dimensions of ATE perceived by Portuguese CAs (following Borrego et al., 2017; Ferrari & Randisi, 2013; Sá et al., 2014).

Using the Kaiser-Myer-Olkin (KMO) test, sample adequacy for all variables was analysed. This value is considered adequate (Kaiser & Rice, 1974). The component matrix for the CAs perceptions of ATE shows a KMO = 0.8 and Bartlett's Test of Sphericity with $\chi^2_{10} = 2630.709$ and $p = <0.001$, demonstrating EFA procedure appropriateness. The measure of sample adequacy (MSA) is greater than 0.6 for all variables.

As Costello and Osborne (2005) and Field (2009) suggest the Cattell (1966) scree test (see Figure 3) was applied, in conjunction with the eigenvalues, to determine the number of factors to retain.

Following the minimum eigenvalue criterion, all factors exhibiting an eigenvalue higher than 1 were retained (Guttman, 1954; Kaiser, 1960, 1961). The four-factor solution (ATE complexity, ATE tax planning, ATE tax compliance and ATE SMEs tax compliance) obtained explained 60.67 % of the total variance, as shown in Table 5.

The Principal Component Analysis with a varimax rotation was used to improve the interpretation of the extracted factors, allowing a better association of the variables to the factors and simplify the structure of the factor loading matrix. Variables with loadings of 0.5 or greater on only one factor were extracted (Hair et al., 2009).

Table 6 presents the factorial weights estimated by EFA – Rotated Component Matrix.

From our results, we can see that Portuguese CAs understand four dimensions of ATE:

Figure 3: Scree plot.

Table 5: Total variance explained.

Component	Eigenvalues	% of variance	Cumulative %
1	3.971	28.361	28.361
2	1.84	13.146	41.507
3	1.526	10.903	52.41
4	1.156	8.26	60.669
5	0.923	6.593	67.262
6	0.798	5.703	72.966
7	0.631	4.508	77.474
8	0.603	4.308	81.781
9	0.553	3.948	85.729
10	0.496	3.54	89.269
11	0.455	3.251	92.521
12	0.426	3.042	95.562
13	0.337	2.405	97.967
14	0.285	2.033	100

Extraction Method: Principal Component Analysis

*KMO = 0.8; $p < 0.001$; Cronbach's Alpha: 0.8; Variance explained: 60.67 %

Table 6: Rotated Component Matrix.

	Component			
	1	2	3	4
Interpretation of ATE rules	0.766	0.019	0.111	0.102
Frequent changes in ATE law	0.813	0.091	0.032	0.095
Diversity of ATE rates	0.761	0.133	−0.043	0.071
Preparation of accounting and tax information	0.782	0.150	−0.043	0.068
Legal conflicts	0.704	0.212	0.013	0.027
ATE influence on vehicle acquisition	0.113	0.783	−0.096	0.179
ATE’ double penalties’ influence on goods and services acquisition	0.207	0.768	−0.119	0.196
ATE’ effect on results management	0.046	0.631	0.384	−0.139
ATE’ impact on reduction of expenses subject to taxation	0.179	0.728	0.096	0.082
Higher ATE taxation with tax losses	−0.146	−0.036	0.705	−0.107
Broadening the tax base of ATE	0.043	0.010	0.727	0.216
Tax auditing reduction	0.138	0.079	0.559	0.171
ATE of SMEs	0.160	0.097	0.185	0.789
SMEs’ tax burden	0.075	0.169	0.062	0.847

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations.

4.1.1 Dimension 1: ATE complexity

ATE has led many companies to Portuguese courts and CAAD (Martins et al., 2018). Several major amendments in ATE legal rules are a relevant source of complexity in tax legislation, which may indicate an inefficient law drafting process (Freedman, 2005; Lopes, 2010; McKerchar, 2007).

This dimension includes the following variables: interpretation of ATE rules; frequent changes in ATE law; diversity of ATE rates; preparation of accounting and tax information; legal conflicts.

4.1.2 Dimension 2: ATE tax planning

Managers adopt wide-ranging tax policies designed to reduce companies’ corporate tax payments (Groen, 2017; Guenther, Matsunaga, & Williams, 2013). Expenses subject to ATE are a source of tax management decisions, such as the type of vehicles to be acquired or bonuses to be paid.

This dimension includes the following variables: ATE influence on vehicle acquisition; the effect of ATE double penalties' influence on goods and services acquisition; ATE's effect on results management; the impact of ATE on the reduction of expenses subject to taxation.

4.1.3 Dimension 3: ATE tax compliance

Swistak (2016) suggests that specific penalties can increase tax compliance. As stated by Isa, Yussof, and Mohdali (2014), taxpayers are quite sensitive to tax auditing procedures and faced with a high audit probability, they feel pressured to comply (Hartl et al., 2015). Some authors identified ATE as playing an important role in tax compliance (Santos & Palma, 2013).

This dimension includes the following variables: Higher ATE taxation with tax losses; broadening the tax base of ATE; tax auditing reduction.

4.1.4 Dimension 4: ATE SMEs tax compliance

The majority of Portuguese SMEs show negative accounting and taxable income. In this context, ATE could function as a minimum tax (Dinis, Martins, & Lopes, 2017). A compliance dimension, specifically related to SMEs, may emerge from ATE rules. This dimension includes the following variables: ATE of SMEs; SMEs tax burden.

Table 7 presents the levels of Portuguese CA perceptions of ATE dimensions.

Portuguese CAs have a good understanding of ATE complexity (50.23 %), a strong understanding of ATE tax planning (70.68 %), a poorer understanding of ATE tax compliance (67.22 %) and a good understanding of ATE SMEs tax compliance (51.4 %).

To test how the measured variables well represent the factor structure of the CAs understanding of ATE, we used the Confirmatory Factor Analysis (CFA).

Results showed values of sk between -1.570 and 0.59 and values of ku between -16.532 and 1.926 . All indicators had a univariate normal distribution (the assumption of normality is considered when absolute values of $sk < 3$ and $ku < 10$ (Kline, 2011)). CFA shows standardized factor loadings greater than 0.3 for all items.

The results of CFA revealed that the 14-item, 4-factor model of the Portuguese CA perceptions of ATE provided a good fit for the data (see Figure 4).

All items significantly loaded their hypothesized factors and acceptable fit indices, with $GFI = 0.967$ and $RMSEA = 0.044$. Values of GFI close to 0.90 or

Table 7: Portuguese CAs’ levels of perception (frequencies and percentage)^a.

Level of perception	ATE complexity (N)	%	ATE tax planning (N)	%	ATE tax compliance (N)	%	ATE SMEs tax compliance (N)	%
Lower (values up to 1 to 3)	177	26.62	62	9.32	447	67.22	152	22.86
Medium (values ≥ 4 to 5)	154	23.16	133	20.00	112	16.84	171	25.71
High (values ≥ 5)	334	50.23	470	70.68	106	15.94	342	51.43
Cronbach’s Alpha	0.8		0.7		0.5		0.7	
Total (N)						665		

^aInternal consistency was assessed for each level of perception and for all items, using Cronbach’s Alpha (a value of ≥ 0.5 was considered acceptable and a value of ≥ 0.7 was considered good).

0.95 and RMSEA values of 0.03 to 0.08 reflect a good fit (as recommended by Brown, 2006). TLI = 0.953, CFI = 0.966 and NFI = 0.942, suggest good incremental fit indicators. Values of TLI greater than 0.95 and values of NFI and CFI greater than 0.9 suggest a good fit (according to Hair et al., 2009). The values of AGFI = 0.949 and PNFI = 0.693 also reflects good parsimony fit indicators (Hair et al. (2009) recommend values of AGFI greater than 0.9 and values of PNFI greater than 0.5).

4.2 Testing the research hypotheses

4.2.1 Bivariate analysis

To test the research hypotheses a bivariate analysis was applied. The purpose was to study the relationship between sociodemographic, technical and professional variables and CA tax perceptions of ATE in different dimensions: tax complexity, tax planning, and tax compliance.

Due to the characteristics of survey data (non-normal distribution), we used nonparametric tests. Correlations of variables and their constituent items were assessed using Kendall’s tau (τ) and Spearman’s rank (ρ) correlations (Kendall, 1955; Spearman, 1904).

Figure 4: Factor loadings of Confirmatory Factor Analysis for the Portuguese CA perceptions of ATE.

4.2.1.1 Analysis of the relationship between demographic and professional variables and Portuguese CA perceptions of autonomous taxation complexity, tax planning, and tax compliance

As shown in Table 8, some socio-demographic and professional variables are significantly correlated with CAs' perceptions about ATE. Older and male CAs exhibit stronger perceptions on the impact of ATE in tax complexity. The fact that females are relative latecomers to the profession may explain that males, having dealt with a more significant number of technical issues, tax audits, and litigation related to ATE, tend to see it as a source of complexity in complying with corporate tax duties. Besides, more experienced CAs exhibit a higher perception of ATE's complexity. It is understandable that a longer period of accounting and tax professional

Table 8: Bivariate analysis: Kendall's tau (τ) and Spearman's rho (ρ) correlations (socio-demographic and professional variables).

		ATE complexity		ATE tax planning		ATE tax compliance		ATE SMEs tax compliance	
		τ	ρ	τ	ρ	τ	ρ	τ	ρ
age	Correlation	.079**	.107**	.098**	.131**	-.121**	-.163**	.034	.047
	Coefficient								
gend	Sig. (2-tailed)	.006	.006	.001	.001	.000	.000	.225	.222
	Correlation	.080*	.090*	.061	.068	-.097**	-.109**	-.029	-.033
exper	Coefficient								
	Sig. (2-tailed)	.020	.020	.079	.079	.005	.005	.391	.391
kger	Correlation	.109**	.129**	.113**	.132**	-.141**	-.165**	.063	.075
	Coefficient								
actexerc	Sig. (2-tailed)	.001	.001	.001	.001	.000	.000	.051	.052
	Correlation	.060	.072	.119**	.141**	-.004	-.005	.086**	.104**
	Coefficient								
	Sig. (2-tailed)	.061	.065	.000	.000	.897	.898	.007	.007
	Correlation	.079*	.096*	.065*	.080*	-.030	-.036	.022	.027
	Coefficient								
	Sig. (2-tailed)	.013	.014	.043	.039	.341	.349	.482	.482

** . Correlation is significant at the 0.01 level (2-tailed).
* . Correlation is significant at the 0.05 level (2-tailed).
age = age; **gend** = gender; **exper** = experience; **kger** = tax knowledge; **actexerc** = activity practice

activity, and the accompanying need of constant updating ATE's intricate tax specifics, may generate a perception of complexity in the interpretation and application of ATE (Borrego et al., 2017; Lopes, 2012; Mckerchar, 2005).

Additionally, CAs working as independent professionals, with a more diversified customer base, dealing with a potentially larger set of expenses subjected to ATE, may develop a sense of complexity in the application of related tax rules (Devos, 2008; Mustapha & Obid, 2015; Niemiowski et al., 2003).

The influence of ATE in tax planning is significantly correlated with CAs' age, professional experience, level of tax knowledge and how they perform their activity (self-employed or employees).

Experience, tax knowledge and type of activity influence the perception of CAs on the tax planning side of ATE. Issues like vehicle acquisition, performance-related bonuses and representational expenses originate autonomous taxation. As such, when advising corporate clients, CAs have a better perception of how ATE may add another layer of tax planning consideration when managers decide to acquire certain capital goods or incur in personal expenses. The points

underlined before relatively to age and complexity also apply here (Blaufus et al., 2013; Groen, 2017; Guenther et al., 2013).

Regarding ATE's impact on tax compliance, CAs perception is negatively correlated with age, gender, and professional experience. The results are in line with Swistak (2016) and Poppelwell et al. (2012).

Older and more experienced CAs tend to see ATE as a “substitute” for the corporate income tax, or even a minimum tax. That is, once some amount of ATE is shown in corporate tax returns, it may reduce the propensity of tax auditors to check a company's numbers. The fact that male CAs have a stronger negative view of the relation between ATE and compliance is also in accordance with their long experience, and the growing sense that ATE is becoming more a parallel tax and not an avoidance fighting mechanism for a well-defined set of expenses.

Moreover, this result is not totally unexpected from the ATE teleological side. If the reason for implementing ATE is to tax expenses that are of dubious nature, or where the frontier between corporate and personal expenses is fuzzy, then the successive expansion of the set of expenses under this special tax regime may originate in CAs and their clients the perception that ATE is part of the normal tax regime. Accordingly, companies may understate their true income tax base.

The level of tax knowledge is significantly correlated with CAs perception of tax compliance in SME. A special feature of the legal design of ATE may explain this result. As it is well known¹⁶, the large majority of Portuguese SME do report losses. ATE's rules establish that when a company reports losses, ATE's rates increase by ten percentage points. Thus, the level of tax knowledge induces a trade-off between a higher ATE bill and reporting taxable profits, increasing compliance (Alm & Torgler, 2012; Freire-serén & Panadés, 2013).

4.2.1.2 Analysis of the relation between technical variables and Portuguese CA perceptions of autonomous taxation complexity, of the autonomous taxation role in tax planning and the autonomous taxation role in tax compliance

According to Table 9, the CAs' tax complexity perception of autonomous taxation is significantly different depending on the type of expenses subject to taxation.

¹⁶ See Corporate Tax Statistics at <http://info.portaldasfinancas.gov.pt/pt/dgci/divulgacao/estatisticas/Pages/default.aspx>.

Table 9: Bivariate analysis: Kendall's tau (τ) and Spearman's rho (ρ) correlations (technical variables).

		ATE complexity		ATE tax planning		ATE tax compliance		ATE SMEs tax compliance	
		τ	ρ	τ	ρ	τ	ρ	τ	ρ
ndocexp	Correlation	,046	,057	−,026	−,030	,127**	,156**	−,029	−,034
	Coefficient								
vehicexp	Sig. (2-tailed)	,141	,143	,416	,439	,000	,000	,354	,379
	Correlation	,045	,053	,084*	,097*	−,029	−,035	,063	,074
repexp	Coefficient								
	Sig. (2-tailed)	,172	,173	,012	,013	,378	,374	,055	,057
ltjexp	Correlation	,053	,063	,080*	,094*	,023	,027	,042	,050
	Coefficient								
allexp	Sig. (2-tailed)	,100	,106	,014	,016	,485	,482	,184	,194
	Correlation	,053	,062	−,004	−,005	,108**	,126**	,005	,005
profexp	Coefficient								
	Sig. (2-tailed)	,111	,112	,903	,905	,001	,001	,891	,901
compexp	Correlation	,046	,057	,068*	,082*	,076*	,096*	,079*	,098*
	Coefficient								
exccexp	Sig. (2-tailed)	,137	,144	,032	,034	,015	,013	,011	,012
	Correlation	,100**	,116**	−,004	−,005	,069*	,080*	,006	,007
bonexp	Coefficient								
	Sig. (2-tailed)	,003	,003	,907	,907	,039	,039	,864	,863
revalexp	Correlation	,067*	,078*	−,054	−,062	,013	,015	−,048	−,056
	Coefficient								
ndocexp	Sig. (2-tailed)	,043	,043	,109	,110	,685	,698	,145	,151
	Correlation	,075*	,089*	,004	,005	,033	,038	,003	,004
vehicexp	Coefficient								
	Sig. (2-tailed)	,022	,022	,914	,904	,318	,324	,918	,912
repexp	Correlation	,056	,066	−,028	−,032	,036	,042	−,041	−,048
	Coefficient								
ltjexp	Sig. (2-tailed)	,087	,088	,405	,417	,272	,278	,206	,217
	Correlation	,062	,071	−,079*	−,090*	,078*	,089*	−,032	−,037
allexp	Coefficient								
	Sig. (2-tailed)	,066	,067	,020	,020	,021	,021	,344	,338

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

ndocexp = non – documented expenses; **vehicexp** = expenses related to vehicles; **repexp** = representation expenses; **ltjexp** = payments made to entities resident in low tax jurisdictions; **allexp** = allowances and travelling costs, incurred by employees; **profexp** = profits distributed to taxable persons who benefit from total or partial exemption; **compexp** = expenses relating to compensation; **exccexp** = expenses related to the part that exceeds the value of the remunerations; **bonexp** = expenses with bonus; **revalexp** = revaluation reserve of tangible fixed assets

The Portuguese CA identify the following tax complexity areas: (a) profits distributed to taxable persons who benefit from total or partial exemption; (b) expenses relating to compensation or any compensation due and not related to the achievement of productivity objectives; and (c) expenses related to the part that exceeds the value of the remunerations.

The three areas mentioned above have created tax judicial conflicts¹⁷, which introduces tax complexity as well as high compliance costs (Avi-Yonah, 2011; Borrego et al., 2017, 2018; Tran-Nam, 2015). Regarding the other expenses, there are no significant differences in the perception of the tax complexity of CAs in relation to ATE. These expenses are related to the normal activity of the companies and do not present tax difficulties in computing the amount of autonomous taxes, since they are expenses which the CAs apply (or applied) more frequently and therefore do not present a remarkable degree of difficulty in their application, nor in the interpretation of tax legislation (Jackson & Milliron, 2002; Mckerchar, 2005).

Table 9 also highlights the relation between CAs' autonomous tax perception and business tax planning, especially in the following expenses: (a) expenses related to personal vehicles; (b) representation expenses (considering such receipts, meals and travel provided to customers, suppliers or any other persons); and (c) allowances and expenses compensation for the use of the employee's own vehicle in business-related travel.

These results are explained by the fact that these are the expenses that the CAs apply (or have applied) more frequently in companies that they represent (or represented), and which influence corporate tax management, particularly because they are expenses which form part of the normal activity of companies and which they cannot give up (Martins, 2017).

In order to optimize tax burden, companies tend to acquire vehicles whose related expenses are subject to lower or zero autonomous tax rates, even when this option does not prove to be the most correct from the management perspective. In Portugal, the acquisition of a personal vehicle with a value equal to 35 000 Euros will pay an autonomous tax rate of 35 % on the vehicle's related expenses; whereas if the company purchases a personal vehicle for 18 000 Euros, its expenses will be subject to a tax rate of 10 %. This example shows how well autonomous taxation influences the way the company is managed, leading to businesses options that are not always the most efficient.

With regard to the payment of subsistence allowances, and also with the aim of reducing the tax burden, taxpayers may choose to pay subsistence allowances to employees for the use of their own vehicle, associated with an autonomous tax

17 See, for example, CAAD Processes: 125/2013-T, 659/2014-T, 545/2016-T, 163/2017-T, 491/2017, 363/2017-T, 106/2015-T and Judgment TCAS 09878/16.

rate of 5 % instead of the acquisition of a vehicle for the company, which can suffer an autonomous rate of 35 % applied to associated expenses.

Finally, the CAs' perception of autonomous taxation related to the revaluation reserve of tangible fixed assets, despite being statistically significant, has a negative impact on the perception of autonomous taxation and fiscal planning. We believe this result is related to the fact that this autonomous taxation is not compulsory and only applies to taxpayers who opted to revalue their tangible fixed assets. This measure was introduced by the tax decision-maker as an exceptional issue and limited to the year of 2016. If a corporate chose to revalue fixed assets, it would simultaneously pay an ATE rate of 14 % on the value of revaluation reserve. Therefore, this measure proved to be unattractive for companies.

The remaining expenses are not significant in explaining the CAs' perceptions of ATE's impact on tax planning, since CAs respondents are mainly responsible for SMEs and apply (or applied) ATE to these expenses less frequently (or have never applied).

There are also significant differences in CA's perception of autonomous taxation in business tax compliance, depending on the expenses: (a) undocumented expenses; (b) expenses related to fiscal regimes clearly more favourable; (c) allowances for compensation and compensation for travel in the employee's own vehicle; (d) profits distributed to taxable persons who benefit from total or partial exemption; (e) revaluation of tangible fixed assets.

We believe these results can be explained by the relation of these expenses to tax fraud and tax evasion, which Portuguese CA realize that autonomous taxation could have a deterrent effect on tax noncompliance (Martins et al., 2018; Morais, 2007; Nabais, 2018). In the particular case of ATE on the revaluation of tangible fixed assets, the Portuguese State would collect tax revenue that also induces a potential future tax expense, because it will allow companies to depreciate their assets based on a higher (revaluated) values. This tax advantage may not exist if the adhering companies do not expect a sufficient level of taxable income to accommodate the increase in depreciation.

This result is relevant because it contradicts those obtained regarding the impact of this ATE tax expense on tax planning. This is explained by the fact that although the revaluation scheme applies to all companies, it benefits mostly large companies¹⁸. For these companies, the amount of paid ATE is of lower concern. They have the financial capacity to advance 14 % of the value of the asset

18 The analysis of the budgetary impact of asset revaluation made by the Portuguese Technical Unit for Budgetary Support (UTAO) reveals that the number of companies that joined the program was residual: only 183 (0.016 % of Portuguese companies). Five companies represented about 2/3 of the total revalued value. See more in: <https://www.parlamento.pt/>.

revaluation while looking at the future tax benefit associated with the higher depreciation expenses, which may allow them to reduce the future tax burden¹⁹.

Actually, the ATE was firstly introduced in Portugal as a strategy to fight fraud and tax evasion.

The ATE leads to an “obligated” voluntary tax compliance for corporate taxpayers, for several reasons. Firstly, because the expenses subject to ATE are expenses easily target of tax audit procedure (following the work of Hartl et al., 2015). Secondly, companies, especially SMEs, may have the purpose of avoiding paying higher wages, preferring to pay subsistence allowances (Carey, Sheldon, Andriescu, & Foundation, 2018; Patterson, West, Lawthom, & Nickell, 1997), and the ATE may deter corporate taxpayers from this behaviour. Thirdly the ATE does not encourage nondocumented expenses and payments associated with entities resident in tax havens and taxable persons exempt from taxation.

To sum up, the perception of CA in relation to autonomous taxation induces to an “obligated” voluntary tax compliance as well as leads to aggressive tax planning by companies.

Moreover, ATE complexity is explained by the interpretation of ATE rules, frequent changes in ATE law, diversity of ATE rates, preparation of accounting and tax information and legal conflicts. As a result, we believe tax policymakers have some issues to sort out in relation to the efficiency of ATE law. In addition, increasing taxation (higher ATE taxation with corporate tax losses) or reaching a solution of broadening the tax base of ATE (in order to reduce tax auditing) may not improve companies’ tax compliance.

Although the introduction of ATE seems potential to be a good measure for fighting tax evasion and fraud, it might also have the opposite effect, increasing avoidance with the consequent non-compliance. As a result, we can say that the role of ATE in SMEs’ tax compliance is an important tax issue.

4.2.2 Chartered accountants’ profile: Cluster analysis

In order to identify Portuguese CA respondents’ profiles, we have used cluster analysis, based on the demographic, professional and technical variables under study, as well as on the perception dimensions created by EFA.

19 The amount of the revaluations and the correspondent special autonomous taxation is concentrated in one company. Based on that company’s report and accounts, in 2016, the UTAO’s report also indicates that the total amount of revaluations is 1.185 million euros, corresponding to an autonomous tax amount for the 2016–2018 triennium that “will be 165 million euros”, but the scheme will allow this company “to accommodate a tax deduction of 339 million euros in future years”. See more in: <https://www.parlamento.pt/>.

The cluster analysis developed in this paper was based on the non-hierarchical clustering method called K-means, which consists of a transfer of an individual to the cluster whose centroid is the shortest distance.

The following steps were taken until the final model was obtained: first, application of the K-means method for different values of k (k = 2 and k = 3) to evaluate the number of groups that allow for greater differentiation; second, assessment of the contribution of the variables to the definition of groups (with the main sets of variables with low contribution – i. e. with low F value – being removed²⁰).

A three-cluster solution was obtained in Table 10.

Table 10: Number of cases (Portuguese CA sample) by clusters.

Number of cases in each cluster			%
Cluster	1	130	19.55
	2	276	41.50
	3	259	38.95
Valid		665	100.00
Missing		0	–

The application of the K-means method, with three groups established, results in the assignment of individuals to the groups created. The following Table (11) shows that all the variables present high values of F, contributing strongly to the definition of the groups.

Table 11: ANOVA one way.

	Cluster		Error		F	Sig.
	Mean square	Df	Mean square	df		
Age	36,076,06	2	24,44	662	1475,99	<0.001
Gender	8,26	2	0,23	662	36,60	<0.001
Number of years of professional experience	92,53	2	0,30	662	304,54	<0.001
Accountant activity practice	22,86	2	1,87	662	12,22	<0.001
ATE complexity	7,86	2	2,07	662	3,80	<0.001
ATE tax planning	8,57	2	1,74	662	4,93	<0.001
ATE tax compliance	19,13	2	2,03	662	9,44	<0.001

20 As in the case of the professional variable tax knowledge and the technical variables under study (measured by the corporate expenses subjected to ATE).

From the cluster analyses, Portuguese CA perceptions focusing on ATE complexity, ATE tax planning and ATE tax compliance also allow discrimination between clusters.

The distance between final cluster centres can be analysed in Table 12, as follows:

Table 12: Distances between Final Cluster Centres.

Cluster	1	2	3
1		28.114	15.070
2	28.114		13.057
3	15.070	13.057	
Duncan grouping ($\alpha = 0.05$)			
Age		2; 3; 1	
Gender		2; 3; 1	
Number of years of professional experience		2; 3; 1	
Accountant activity practice		2; 3-1	
ATE complexity		2-3; 3-1	
ATE role in tax planning		2; 3-1	
ATE role in tax compliance		1-3; 2	

The results of Duncan’s Multiple Range Test (DMRT) show the differences between the three clusters. Clusters 1 and 3 are equivalent in accountant activity practice and in the knowledge that Portuguese CAs have of ATE in the Portuguese tax system (ATE complexity, ATE tax planning and ATE tax compliance), but they differ in age, gender and number of years of professional experience. Cluster 2 is similar to Cluster 3, regarding the understanding of ATE tax complexity.

Figure 5 identifies the three clusters.

The clusters can be classified as follows:

Cluster 1. 130 Portuguese CAs (19.55 % of the sample), on the average male, with more than 20 years’ professional experience, self-employed (not integrated into a professional body), with an average age of 65. These CAs have considerable knowledge of ATE complexity and of ATE tax planning. However, they do not have a deep understanding of ATE tax compliance.

Cluster 2. 276 Portuguese CAs (41.50 % of the sample), on average female, with up to 10 years’ professional experience, employed, with an average age of 37. These CAs possess a moderate understanding of ATE tax compliance, but considerable knowledge of ATE tax planning and of ATE complexity.

Cluster 3. 259 Portuguese CAs (38.95 % of the sample), on average female, with between 11 and 20 years of professional experience, self-employed (not integrated into a professional body), with a mean age of 50. These CAs have

Figure 5: Joint plot of categories points.

considerable knowledge of ATE complexity and of ATE tax planning, but a poor understanding of ATE tax compliance.

In summary, the cluster analysis supports bivariate analysis results.

Portuguese CA perceptions as regards ATE are grouped together according to demographic and professional factors. Seen in these terms, Clusters 1 and 3 are distinguished from Cluster 2, since it is in the former that (on average) older (male and female), self-employed and more experienced Portuguese CAs with a greater understanding of ATE complexity and ATE tax planning and lower understanding of ATE tax compliance are concentrated. Alongside that, younger female, employed and less experienced Portuguese CAs are concentrated in Cluster 2, with a greater understanding of ATE tax planning and ATE complexity and a modest perception of ATE tax compliance.

5 Conclusion

In Portugal, Chartered Accountants (CAs) play a key role in the process of companies' tax compliance, including autonomous taxation of expenses (ATE).

This study highlights four dimensions of ATE: ATE complexity, ATE tax planning, ATE tax compliance and ATE SMEs tax compliance.

Portuguese CAs have significant knowledge of ATE complexity (50.23 %) and of ATE tax planning (70.68 %), poorer knowledge of ATE tax compliance (67.22 %) and considerable knowledge of ATE SMEs tax compliance (51.4 %).

Some demographic variables, especially age and gender, display a positive relation with ATE complexity perception and a negative relation with ATE tax compliance perception.

Among professional variables, the number of years of professional experience, the level of tax knowledge and activity is exercised positively affect ATE tax planning perception.

Amongst technical variables, the type of expenses subject to taxation, which CAs apply or have applied corporate expenses subject to corporate ATE, influences Portuguese CA perceptions of ATE complexity (in the case of profits distributed to entities wholly or partially exempted from CIT), of ATE tax planning (in the case of expenses related to vehicles, representation expenses, allowances and travelling costs incurred by employees and incentives to revaluation of tangible fixed assets), and of ATE tax compliance (in the case of non-documented expenses, profits distributed to entities wholly or partially exempted from CIT, payments made to entities resident in low tax jurisdictions and incentives to revaluation of tangible fixed assets) – including SMEs (in the case of allowances and travelling costs).

Our results suggest that ATE is an important issue in tax planning. Even though ATE was introduced to fight tax evasion, it now appears to be a way of obtaining tax revenue, with an issue in ATE legal efficiency (tax law complexity), considering the fact that ATE is highly contentious. The temptation to use ATE to increase tax revenue leads to a relevant source of complexity in tax legislation, and the interpretative work of courts can be quite hard. This is especially true when legal changes are made based on outcomes that are unfavourable to the tax authorities. Thus, careful scrutiny of the Portuguese experience can be used as a reminder that ATE can be a significant source of complexity and litigation. This also an engender perverse effects regarding tax compliance, such as abusive tax planning and corporate tax non-compliance. In that respect, this research may be relevant for Portuguese tax legislators and international policymakers, who may be hard-pressed to find additional tax revenue by means similar to ATE.

It would be interesting to study other variables that could play an important role in Portuguese CA perceptions of ATE, such as (i) CA's companies' portfolio (ii) CA's companies' portfolio's dimension subject to autonomous taxation and (iii) CA's companies' portfolio's economic activity subject to autonomous taxation. Also, this work can be extended to other users of the ATE law, such as lawyers, judges, and tax authority and confronted their position with the CAs' understanding. Thus, is expected this to be the first of a set of future research work.

Appendix A: Questionnaire – Autonomous taxation of companies in Portugal: The perception of Chartered Accountants (English translation)

Note: Answer only if you are a Chartered Accountant in activity.

PART I - SOCIO-DEMOGRAPHIC AND TECHNICAL CHARACTERIZATION

1 Age: _____ 2 Gender ☒ M ☐ F

3 Academic degree
* Please select only one of the following options:

3.1 Bachelor ☐ 3.4 PhD ☐
3.2 Masters ☐ 3.5 Other ☐
3.3 Graduation ☐

4 Knowledge Area (Base formation)
* Please select all that apply:

4.1 Accounting ☐ 4.4 Management ☐ 4.7 Other ☐
4.2 Economy ☐ 4.5 Audit ☐
4.3 Law ☐ 4.6 Taxation ☐

5 Region
* Please select only one of the following options:

5.1 North ☐ 5.3 Center ☐ 5.5 South ☐
5.2 Madeira ☐ 5.4 Azores ☐

6 Number of years of professional experience as an accountant
* Please select only one of the following options:

6.1 Up to 10 years ☐ 6.2 > 11 to 20 years ☐ 6.3 > 20 years ☐

7 On a scale of 1 (very low level) to 7 (very high level), indicate how you assess your tax knowledge level
* Please select all that apply:

	1- Very low level	2	3	4	5	6	7- Very high Level
7.1 Global Taxation	☐	☐	☐	☐	☐	☐	☐
7.2 Income Taxation	☐	☐	☐	☐	☐	☐	☐
7.3 Consumption Taxation	☐	☐	☐	☐	☐	☐	☐
7.4 Property Taxation	☐	☐	☐	☐	☐	☐	☐
7.5 Tax Benefits	☐	☐	☐	☐	☐	☐	☐

PART II - EXERCISE OF THE ACTIVITY OF CHARTERED ACCOUNTANT

8 Exercise of activity as Chartered Accountant

* Please select all that apply:

- 8.1 Employed ☐
8.2 Self-employed not integrated into a professional society ☐
8.3 Self-employed integrated into a professional society ☐

14.4 Autonomous taxation increases the effective average corporate tax rate, so companies deliberately reduce expenses subject to autonomous taxation

☐ ☐ ☐ ☐ ☐ ☐ ☐

15 Indicate, on a scale of 1 (I strongly disagree) to 7 (I strongly agree), what is your degree of agreement with regard to the statements that follow on autonomous taxation in the corporate taxation regime

* Please select all that apply:

	1- I strongly disagree	2	3	4	5	6	7- I strongly agree
15.1 Companies with tax losses must pay more autonomous taxation	☐	☐	☐	☐	☐	☐	☐
15.2 Autonomous taxation is mostly paid by micro and small businesses	☐	☐	☐	☐	☐	☐	☐
15.3 Autonomous taxation has a greater impact on the tax burden of micro and small businesses	☐	☐	☐	☐	☐	☐	☐
15.4 Autonomous taxation should extend to other expenses and the CIT rate should be reduced	☐	☐	☐	☐	☐	☐	☐
15.5 Autonomous taxation reduces tax audit to companies by tax authority	☐	☐	☐	☐	☐	☐	☐

The questionnaire is finished. Your contribution is very important. We appreciate your cooperation.

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