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# Accountants' ethical perceptions from several perspectives: evidence from Slovenia

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## ABSTRACT

The purpose of the article is to explore the ethical perceptions of accountants in selected Slovene organisations towards ethically-sensitive scenarios. The article explores ethical perceptions among 'internal accountants' and those working in companies operating as providers of external accounting services. Since external accounting services companies are not specifically regulated by the profession, we hypothesise that accountants working in external accounting service companies are more lenient to ethically-sensitive scenarios. Moreover, we analyse if ethical perceptions differ between accountants having a professional certificate and those that do not. We believe those that have a certificate are harsher towards ethically-sensitive scenarios. For the purpose of our analysis a questionnaire was distributed to accounting professionals. Our analysis is made on a large sample of 451 accountants. Results of ordered probit regression support the first two hypotheses, despite the fact that not all of the vignettes resulted as statistically significant. Our study contributes to the literature in that the ethics of accountants from countries with non-regulated markets of accounting services have not yet been investigated in the literature.

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Accountants; external accounting service providers; ethics; ethical perceptions; ethical dilemmas; accounting manipulations

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## 1. Introduction

Financial statements are used for decision-making by different groups of stakeholders. Since business events are reflected in financial accounts, how they are recorded is important. Positive accounting theory argues that management is rational and will choose methods of reporting that will meet their own interest (Watts & Zimmerman, 1990; Healy & Wahlen, 1999; Scott, 2003).

In Slovenia, management is responsible for the preparation and fair presentation of financial statements in accordance with accounting standards, and within the requirements of the Slovenian Companies Act, or Accounting Act. However, financial statements are prepared by accountants. Despite the fact that the positive accounting theory suggests that management will act opportunistically when it has the discretion to choose, accountants are supposed to record business events in accordance with the code of ethics for professional accountants.

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The purpose of the article is to explore the level of ethical perception evaluated by accountants in selected Slovenian organisations, considering different ethically-sensitive scenarios. Our research question is whether accountants – i.e., bookkeepers, those who compile annual reports and reports for tax purposes – in Slovenian organisations are sensitive towards ethically-sensitive scenarios?

Up-to-date studies exploring the ethical perceptions of accounting practitioners, considering different ethically-sensitive scenarios, are focused almost exclusively on traditionally developed countries, while transition and post-transition countries have not been studied enough in detail. Previous studies from traditionally developed countries analysed accounting practitioners from countries where qualification and registration of accountants is required. In contrast, this study aims to analyse accounting practitioners who are not obliged to have a particular qualification, nor to be registered.

In Slovenia, no requirements related to professional qualification of accountants are prescribed by Slovene legislation (Slapničar, Groff, & Štumberger, 2013). The bookkeeping process can be performed by accountants who are employed in the organisation (internal personnel) or by external firms providing accounting services.<sup>1</sup> For the latter, Slovenian law does not require that any particular criteria should be met when conducting this kind of business. An accounting firm providing accounting services can be established by anyone. As stated by Slapničar et al. (2013), practitioners working in this kind of accounting firm have variable educational backgrounds and experiences.

The Slovenian environment is also interesting from another point of view. Accounting practitioners are not required to have any professional certificate. There are no requirements for mandatory registration of accountants nor any obligatory licence required to provide accounting services. Possession of a professional certificate is obtained on a voluntary basis. In Slovenia, accountants can obtain two types of professional certificates. There are two professional organisations of accountants in Slovenia – i.e., the Slovene Institute of Auditors and the Chamber of Accounting Services which issue professional certificates. The Slovenian Institute of Auditors performs the training process for qualified accountants, while the Chamber of Commerce and Industry of Slovenia performs the training for obtaining the title ‘Expert Manager of (external) Accounting Services’.

The Slovene accounting system for commercial companies is delineated by the Companies Act and defined in detail by accounting standards. Companies whose securities are listed on a regulated market in the European Community Member States and which are subject to consolidation shall prepare the consolidated financial statements in accordance with the International Financial Reporting Standards (IFRS). In addition to these companies, the IFRS should also be used by banks, insurance companies and other companies, if the general board so decides (for a period of at least five years). In Slovenia, the number of companies using the IFRS is relatively small (precise data is not available). All other companies should use Slovene accounting standards (SAS).

The annual reports of large- and medium-sized companies and the annual reports of small companies whose securities are traded on a regulated market should be examined by an auditor. If a company is not listed and is not a corporation subject to external audit, then there is no other direct official financial reporting enforcement authority apart from the tax authorities. Financial statements of an individual legal entity (separate financial statements) do not serve only for information purposes, but also for taxable income. Thus, tax

authorities are an indirect general enforcement authority for accounting standards (Jerman & Novak, 2014).

On the other hand, accounting rules for public institutions are determined by the Public Finance Act and the Accounting Act. The Accounting Act regulates bookkeeping and the compilation of annual reports for the Budget and Budget Users, legal entities under public law and legal entities under private law which do not keep their books of accounts in line with Companies Act, Public Services Act and Associations Act (Duhovnik, 2007, p. 424). These are supervised by the Court of Audit, which may audit any act on past operations as well as the act on the planned operations of public fund users. Public internal financial controls of direct and indirect budget users are carried out by internal auditors.

Irrespective of their workplace, all accountants in Slovenia must respect the Code of Professional Ethics of Accountants. However, in Slovenia there is no authoritative body that can enforce compliance with the Code of Ethics.

As such, the Slovenian environment, considering the ethics of accountants, is of particular interest. To the best of our knowledge, no study has investigated the level of ethical perception of accounting practitioners in a country where accountants (bookkeepers, those who compile annual reports and reports for tax purposes) are not required to have a particular qualification, or even to be registered.

Our study is also justified because Leuz, Nanda, and Wysocki (2003) and Burgstahler, Hail, and Leuz (2006) have shown that institutional factors have an important influence on the quality of accountancy reporting. Rausch, Lindquist, and Steckel (2014) found that a more individualistic culture leads to a greater ethical awareness of individuals, in comparison to a culture based more on social consensus.

This study contributes to the literature from the field of emerging economies by examining accountants' perceptions of ethically sensitive scenarios in a country with a non-regulated market of accounting services.<sup>2</sup>

The article is divided as follows. Next the theoretical background is presented, focusing on the determinants of ethical perceptions in relation to accounting manipulations. The third section presents the methodological framework, and explains our hypotheses development, data used, and methodological tools. The fourth section presents the descriptive statistics and results of the survey. Finally, part of the conclusion presents the most important findings of our research and suggests some possibilities for future research.

## **2. Theoretical background**

### **2.1. Ethical dilemmas and accounting manipulations**

The beginnings of studies from the field of ethical decision-making can be found in the 1970s. At that time research was mostly non-empirical (Craft, 2013). Studies exploring ethical dilemmas in relation to accounting manipulation became more numerous in the 1990s. Studies of this kind most commonly explored the behaviour or perceived ethics of certified public accountants (CPAs) and students in business faculties. Most of these studies analysed the environments of traditionally developed countries (mostly the US, e.g., Conroy, Emerson, & Pons, 2010; Elias, 2002; Emerson, Conroy, & Stanley, 2006), while only rarely were studies done on samples of emerging economies.

Merchant and Rockness (1994) examined the ethical perceptions of staff accountants, managers and controllers. They distinguished two types of earnings management, i.e., operating manipulations and accounting manipulations. Operating manipulation refers to operating decisions that affect cash flow and income for the reporting period, such as giving more favourable credit terms to increase sales, etc. Alternatively, accounting manipulations refer to the discretion to choose given by accounting standards. They found that accounting manipulations were perceived as more unethical in comparison to operating manipulations.

The results of Elias (2002) were similar. He explored the level of ethics among accountants, in public practice and industry, in accounting faculties, and in students from the US. He found that all the groups of respondents on average perceived operating manipulations somewhere between questionable practice or minor infractions. The results indicate that the respondents did not believe operating manipulations of earnings were unethical. This was especially evident for CPAs working in industry. On the other hand, accounting manipulations were perceived by all groups of respondents as ethical infractions.

Emerson et al. (2006) compared the ethical attitudes of 520 accounting practitioners to a 613-multidisciplinary student sample at two US universities. They wondered if there were any significant differences in ethical attitudes, since some previous studies in moral reasoning ability (Ponemon & Glazer, 1990; St. Pierre, Nelson, & Gabbin, 1990) have indicated that accountants and accounting students generally exhibit lower moral reasoning ability than other population groups. They used a multiple vignette approach to test the acceptability of ethical issues. They were unable to conclude that there was a significant difference between accounting practitioners and the general public (as a proxy a group of students was used). Moreover, they also investigated if there was any significant relationship in ethical attitudes based on an accounting practitioner's specialty classification. Their findings provided no significant difference.

Marques and Azevedo-Pereira (2009) investigated respondents' ethical judgement among Portuguese accountant professionals, using a questionnaire with five job-related scenarios. Firstly, they determined the idealism and relativism levels of 276 Portuguese chartered accountants, and consequently assessed their ethical ideology. They found that idealism and relativism levels were not significant determinants of ethical judgements.

Conroy et al. (2010) investigated ethical attitudes of accounting practitioners using a multiple vignettes approach, focusing on the rank of accountants. They asked 195 CPAs in the US to rank the acceptability of 30 different behaviour issues. They failed to find a consistent difference in the ethical perceptions of accountants based on rank. The perception differences between highly-ranked positions and those on lower levels were very limited, and appeared to be situation-specific. The most robust predictor of ethical attitudes was age.

Pflugrath, Martinov-Bennie, and Chen (2007) investigated how the strength of the ethical environment impacts upon the quality of an auditor's judgement. Their analysis was made on a sample of accounting professionals and auditing students (in total 120) from Australia. The results suggest that the presence of a code of conduct can improve the quality of auditors' judgement.

One of the rare studies that addresses an emerging economy is done by Uyar, Kuzey, Güngörmüş, and Alas (2015). Their study is based on a sample of 219 Turkish accounting professionals. They investigated the influence of six theoretical approaches (i.e., utilitarianism, deontology, egoism, an amoral approach, seniority and ethics, and religiosity and ethics) on ethical awareness. In accordance with the theory, deontology was found to have

a positive effect on ethical awareness. For the amoral approach they also found expected results, i.e., the relation was not significant. However, egoism had a negative influence on ethics awareness. They found a weak positive effect for utilitarianism.

## **2.2. Determinants of ethical perceptions and factors affecting the level of ethics in relation to accounting manipulations**

The theoretical review of the literature shows that in recent decades several determinants of ethical perceptions and the level of ethics in relation to accounting manipulations were explored. Apart from the philosophical orientation of individuals (e.g., relativism, idealism, egoism, etc.), most often studies explored the effects of age, gender, hierarchical position, and educational level. Studies from the field of business ethics in accounting have demonstrated that age and gender play an important role in predicting individuals' ethical attitudes. Age and gender (the latter to a lesser extent) were found to be the most robust predictors of ethical perceptions (Conroy et al., 2010). Older accounting professionals were associated with lower levels of the acceptability of ethically questionable practice (Conroy et al., 2010; St. Pierre et al., 1990; Emerson et al., 2006). However, Barnett, Bass, and Brown (1994) found no relationship between age and ethical judgement.

As shown in several studies (Conroy et al., 2010; Emerson et al., 2006; Franke, Crown, & Spake, 1997; St. Pierre et al., 1990), females found ethically questionable situations less acceptable than males. Despite the fact that most studies found that females have a higher ethical level, the findings of Radtke (2000) provided different results. He found that male and female accountants do not differ significantly in their ethical decisions. He evaluated ethically-sensitive situations in a similar manner. His study was grounded on a sample of 51 accounting practitioners from both the public accounting and private industries.

Ponemon (1990) investigated 52 accounting professionals and found that the ethical reasoning capacity is lower for partners and managers in auditing firms in comparison to their colleagues having lower hierarchical positions. Conversely, Conroy et al. (2010) found the opposite relationship. The study showed no inverse rank-ethical beliefs effect. Similarly, the findings of Uyar et al. (2015) indicate that seniority in the profession has a positive influence on ethical awareness. The higher the seniority level, the higher the ethical awareness. The authors measured the aspect of seniority with three different variables, i.e., years of work experience, hierarchical position, and income level. The findings of Pflugrath et al. (2007), who investigated selected Australian auditors, are also similar. They found that the quality of auditor judgement was explained by the auditor's experience (measured with the auditor's rank). To date, studies provide mixed conclusions about the effect of seniority on ethical attitudes.

Elias (2002) explored the determinants of ethics perceptions, by analysing personal moral philosophies and social responsibility. He found that individuals who believe in social responsibility focus on long-term gains and idealism rated the actions as more unethical.

Uyar et al. (2015) provided evidence that religiosity has a positive influence on ethical awareness. To investigate the effect of religiosity the authors included several aspects of religiosity (e.g., belief in God, attending religious services, etc.). Emerson et al. (2006) found that those who pray at least once a week were associated with stronger ethical attitudes, while they found mixed results for the effect of race.

Marques and Azevedo-Pereira (2009) used: gender, age, educational level, and ethical ideology as independent variables in the model for their analysis of ethical judgement among Portuguese practitioners. In contrast to previous results, they found that older chartered accountants are less willing to follow rules, and women have lower ethical standards than men. They found also that more educated chartered accountants were stricter than those less educated. However, the findings were significant only rarely, which is why they do not provide strong conclusions.

Based on our theoretical review of determinants of ethical perceptions we can summarise that past studies have shown that age and gender are significant determinants of ethical judgements. In general, female and older accountant professionals are identified as being more ethical. An individual's ideology was also found as a significant determinant, although it was confirmed as significant fewer times. Hierarchical rank was found as significant, but the results are mixed.

The impact of demographic variables on the ethical behaviour of accounting practitioners has not been studied in enough detail in the literature regarding emerging economies. Moreover, the available studies were carried out on samples of accounting practitioners/students from countries where the accounting profession is regulated (qualification and registration of accountants is required). To the best of our knowledge no previous study has analysed ethical perceptions of accounting practitioners (bookkeepers, accountants who compile annual reports and reports for tax purposes) from countries where the accounting profession (apart from audit services) is not regulated.

To date most of the studies were performed on samples of CPAs, who are, for the most part, employed by firms that are owned and controlled by other professionals. As argued by Shafer (2002), such organisations provide more professional autonomy. Conversely, in commercial corporations, a likely source of conflict between organisational goals and an accountant's professional values is management pressure to engage in unethical behaviour, such as the manipulation of reported financial results. We believe that the latest financial crisis and deteriorated financial results of companies had an impact on their propensity to manage earnings.

### **3. Research framework**

#### **3.1. Hypothesis development**

The Slovenian environment is particularly interesting since there are currently 4012 companies operating as accounting firms (Chamber of Commerce & Industry of Slovenia, 2014), providing bookkeeping services, financial reporting (most often they compile annual reports) and reporting for tax purposes. The latest data of the Slovenian Statistical Office show that in 2013 there were 182,089 companies operating in total, of which 172,983 were micro companies, 6788 were small companies, 1988 medium-sized companies, and 330 large companies (Statistical office of the Republic of Slovenia [SORS], 2015).

Most often large and medium-sized companies have internal accountants (they work in an internal accounting department), while many small companies and especially micro companies often use external accounting service providers (small and micro firms). The number of firms operating as accounting service providers in Slovenia is relatively high. As such, it is a matter of concern that these companies are not regulated by the profession. Again, Slovenian law does not require that any particular criteria should be met for conducting this kind of business.

Accounting firms provide their services based on contract work. We believe that contract work directly reflects a greater dependence of companies providing accounting services on their clients. To the best of our knowledge no study has investigated the perception of ethical dilemmas among internal accountants and those who work in accounting firms providing external accounting services in an environment with no mandatory certification of this profession. As reported by Gunz, Gunz, and McCutcheon (2002) there seems to be indication that accountants from small firms are more accepting of marginally ethical decisions than their large-firm colleagues.<sup>3</sup> Since internal accounting departments are most often present in large- and medium-sized companies, less often in small companies, and rarely in micro companies, wherein firms providing external accounting services are most often small and micro companies, we believe that:

**Hypothesis 1.** Accountants working in firms providing external accounting services will make more lenient ethical judgements in comparison to accountants working internally within a company.

The European Union has not adopted any law that would require Member States to regulate the profession of accounting practitioners engaged in bookkeeping and financial reporting. The only part of the accounting profession which is regulated on the level of the EU is the statutory audit. The report of the Federation of European Accountants (Federation of European Accountants [FEE], 2012) shows that the organisation of the accounting profession across 30 European countries is not harmonised, differing in terms of education, qualification and registration requirements, supervision and monitoring. Based on their survey, we can note that most of the countries that took part in the survey have regulated the accounting profession on the level of bookkeeping and financial reporting (information per country does not cover all the professional titles, thus for some countries data is missing). On the other hand, in Slovenia accounting practitioners that perform bookkeeping services and financial reporting are not required to obtain any professional certificate nor have any specific qualification or professional title.

In Slovenia, accounting practitioners can obtain two professional certificates (more details were presented in the introduction). Since the decision for training is voluntary and the training provides a wide range of knowledge, it is not surprising that Slapničar et al. (2013) found that professional certificates of Slovene accountants is positively associated with their competences and knowledge. Moreover, we believe:

**Hypothesis 2.** Accountants having a professional certificate will make stricter ethical judgements than those accountants having no certificate.

In accordance with previous studies (Conroy et al., 2010; Emerson et al., 2006; St. Pierre et al., 1990) which have provided evidence that female accounting practitioners have a lower level of the acceptability of ethically questionable practices, we believe that this is also the case in Slovenia.

We hypothesise that:

**Hypothesis 3.** Females will make stricter ethical judgements than their male counterparts.

### **3.2. Sample selection**

For the purpose of this study, we used a questionnaire that was sent to Slovenian accountants. The list of accounting professionals (i.e., bookkeepers, those who prepare financial and



tax records) and their e-mail addresses were obtained from the register of the Association of Accountants, Treasurers and Auditors of Slovenia (hereinafter Association). Auditors were excluded from our analysis (this is the only profession from the field of accounting which is regulated). The Association keeps the largest register of accountants in Slovenia. The register consists of 2824 active accountants. It does not include the entire population, but only those accountants who are registered. The questionnaire was sent to accountants from the register by e-mail in January 2015. We received 546 fulfilled questionnaires (19.3% response rate). We excluded from further analysis questionnaires with missing responses. The final sample consists of 451 respondents.

In comparison with previously published papers from the field of accounting practitioners' business ethics, our sample is large, especially if we take into consideration that Slovenia is much smaller country than those that have been analysed so far. The analysis of Conroy et al. (2010) was made on a sample of 195 US accounting professionals. Marques and Azevedo-Pereira (2009) analysed 276 chartered accountants from Portugal. Radtke (2000) made his analysis on data from 51 US accountants. Larger samples were collected only in the case of US studies, i.e., Elias (2002) – 796 respondents and Emerson et al. (2006) – 520 US accounting practitioners.

### **3.3. Questionnaire**

The questionnaire used for our survey of ethical perception of professional accountants in different earnings management scenarios was fundamentally developed by Merchant (1989). It consists of questions which refer to operating manipulations and accounting manipulations. The questionnaire of Merchant (1989) was further used to examine the level of accounting professionals' ethics by Elias (2002). Scenarios used for our study are based on the questionnaire used by Elias (2002) and are presented in the Appendix. Our questionnaire was slightly modified, based on ethical dilemmas that are familiar to Slovenian accounting professionals. The questionnaire consists of 10 common earnings management scenarios. We selected 10 scenarios that are relevant for the Slovenian business environment. We focused on scenarios reflecting accounting manipulations.

Firstly, we asked the respondents about their opinion in relation to accounting manipulations related to earnings management for the purpose of external financial reporting, earnings management for bank purposes, and earnings management for tax purposes (Q1–Q3). With Q4–Q10 the respondents were asked about their acceptability level of ethically-sensitive scenarios. Vignettes include scenarios such as: postponing expenses, not registering supplies in a timely manner, increasing write-offs, not recording adjustments of accounts receivable, and recording revenues from sales too early/too late.

Since long questionnaires usually have very low response rates, the authors attempted to increase the response rate by preparing a questionnaire of an appropriate length. This was a very important issue to be addressed. Already Weber (1992) pointed out that the number of scenarios has to be reasonable, avoiding the use of excessive number of scenarios. For instance, Marques and Azevedo-Pereira (2009) used in their study five job-related ethical scenarios.

The questionnaire is based on the multiple vignettes approach which was already used by several authors (Conroy et al., 2010; Emerson et al., 2006; Elias, 2002). Ethical attitudes measure the degree of acceptability of an ethically-sensitive vignette (Emerson et al., 2006,

p. 74). The advantage of this approach is to include a variety of ethical sensitive issues that are commonly found in the area of business and accounting (Conroy et al., 2010). The respondent rates the ethics of the action on a Likert scale ranging from an ethical to a totally unethical action.

The questionnaire of Elias (2002) was selected as the most appropriate background for our study, since it includes questions directly referring to accounting manipulations. Thus, the questionnaire directly refers to ethical issues which accountants face in their workplace. Studies like Conroy et al. (2010), Emerson et al. (2006) also enquired (among other questions in the questionnaire) about some general ethical issues which were not characterised directly as earnings management. Since our study is focused on earnings management scenarios, we did not include these kinds of questions in our survey.

Our questionnaire includes ethically-sensitive scenarios which cover situations that have an effect on redistribution of earnings between annual accounting periods (e.g., postponing expenses, increasing/decreasing write-offs, anticipating revenues from sales, etc.).

Apart from the comparative analysis of ethical perception between different accounting professionals in Slovenia, the study will also explore if there are any differences between the ethical perception taking into consideration gender, age, education level, and possession of a professional certificate.

We expect that female, older accountants, and those more educated will demonstrate a higher level of ethics. It is expected that those accountants who work in external accounting services will make more lenient ethical judgements. The same is also expected for those not having a professional certificate.

### **3.4. Methodology**

Our dependent variable (level of the acceptability of the vignettes) takes ordered integer values. The dependent variable takes integer values from 1 to 5 (5-point Likert scale). 1 is used to indicate an ethical practice, while 5 indicates a totally unethical practice.

Since the dependent variable takes ordered integer values, multivariate linear regression is not appropriate for our analysis (Laporšek & Stubelj, 2012). The level of ethics, considering different ethically-sensitive scenarios, will be analysed with an ordered probit regression. Ordered probit regression was already used for the empirical testing by Conroy et al. (2010).

Our ordered probit regression model includes five independent variables: gender, age, educational level, accountant's workplace, and possession of a professional certificate.<sup>4</sup>

The gender dummy variable was assigned the value of 0 if the respondent was male, and 1 if the respondent was female.

Variable 'age' was coded into four categories. Category 1 is represented by those accountants who are up to and including 30 years of age. Category 2 comprises those over 30 years and up to and including 40 years. Category 3 includes those over 40 years and up to and including 50 years. Finally, Category 4 includes those that are more than 50 years.

The third variable 'education' was also coded into categories. Category 1 includes those accountants having the III, IV, or V level of education. Category 2 includes those having VI level of education. Category 3 includes those with the VII level of education. Finally, category 4 represents those with the VIII level of education. More details about the levels of education in Slovenia are presented in the Appendix Like previous studies (Marques & Azevedo-Pereira, 2009; Conroy et al., 2010), we asked about the level of formal education.

The fourth explanatory variable is a binary variable. It is coded to 0 if the accountant works as an internal accountant. It has the value of 1 if the accountant works in a firm providing external accounting services.

The fifth explanatory variable is also a binary variable. It was given the value of 0 if she/he has no certificate and the value of 1 if the accountant has a professional certificate.

The regression model is as follows:

$$y = \alpha + \beta_1 * gender + \beta_2 * age + \beta_3 * education + \beta_4 * accountant' \\ s \ workplace + \beta_5 * possession \ of \ a \ professional \ certificate + \epsilon$$

## 4. Data analysis and results

### 4.1. Descriptive statistics

Table 1 shows descriptive statistics for each of the 10 vignettes. The mean level of acceptability of ethically-sensitive scenarios described in the 10 vignettes ranges from a low of 3.82 (Q7: To meet the annual profit target, organisations do not record adjustments of accounts receivable, even if they know that they are non-collectible), to a high of 4.27 (Q10: Organisations record a part of sales in the next year's financial accounts instead of current year's accounts, not to exceed sales target). The mean values of responses range from those defined as a minor infraction to those being evaluated as a serious infraction. In all cases the mean level of acceptability indicates a relatively high level of non-acceptability. We consider that Q7 received the lowest mean value since adjustments of accounts receivable were a common issue for many companies – especially in times of the recent financial crisis. Thus, the accountants may find this practice more acceptable than other scenarios from the questionnaire.

The mean levels are surprisingly high in all scenarios, showing that on average in none of the cases respondents defined the ethically-sensitive situation as acceptable.

Descriptive statistics shows that respondents found a higher level of non-acceptability for Q3 (organisations engage in earnings management for tax purposes) in comparison to Q1 (organisations engage in earnings management for purposes of external financial reporting) and Q2 (organisations engage in earnings management for bank purposes).

Mean levels of other vignettes show that the values are lower than 4 for only 3 vignettes. These mean value results for Q4 (organisations postpone expenses), Q7 (organisations do not record adjustments of accounts receivable), and Q8 (organisation asks a consulting firm, not to send an invoice until next year). All of these vignettes refer to accounting for

**Table 1.** Summary statistics of responses to vignettes.

Variable	Observations	Mean	Standard deviation
Q1	451	4.184035	1.105265
Q2	451	4.070953	1.160201
Q3	451	4.317073	1.01725
Q4	451	3.966741	1.200464
Q5	451	4.215078	1.050013
Q6	451	4.099778	1.044041
Q7	451	3.827051	1.131872
Q8	451	3.906874	1.192652
Q9	451	4.248337	1.017826
Q10	451	4.277162	0.968796

Source: Research results.

expenses. The results show that the less non-acceptable were defined scenarios which consider cases of non-timely recording of expenses (postponing expenses into future periods).

As the most non-ethical practice were defined Q9 and Q10. Both of them refer to scenarios of accounting for revenues from sales. Data show that respondents consider accruals of revenues from sales between accounting periods as the least acceptable.

Conroy et al. (2010) and Emerson et al. (2006) also found a low level of acceptability related to accounting manipulations scenarios. In their study the mean response for 'under-reporting income for tax purposes' is approximately 1.4 (7-point Likert scale). These actions were defined as illegal. On the other hand, legal actions as 'accounting tricks to conceal embarrassing financial facts' seem to be more acceptable. The mean response was approximately 3.3.

Results of Elias (2002) show that selected US CPAs from public practice and industry viewed earnings management scenarios as questionable to minor ethical infractions. On a 5-point Likert scale the results of his study show a 3.55 mean value of accounting manipulation for the group of accountants from public practice and 3.64 for those working in industry. Our descriptive statistics present a higher mean level for all the vignettes, showing that Slovene accounting practitioners evaluate ethically-sensitive scenarios more harshly.

Table 2 presents descriptive statistics of the sample. Data in Table 2 show that in our sample 86.92% of accountants are female, while only 13.08% are male. Most of our respondents are more than 50 years of age (36.59%), followed by those over 40 years and up to and including 50 years of age (36.14%). The smallest group represents those are up to and including 30 years (only 4.43%). Descriptive statistics show that most of our respondents are (at least based on their age) experienced. Most of the respondents have the VI level of education (45.23%), followed by those having the VII level of education (37.69%). Data show that most of the accountants in the sample are well educated. Only 12.20% of the

**Table 2.** Descriptive statistics.

Independent variable	Frequency	Percent
Gender		
Male	59	13.08
Female	392	86.92
Age		
Up to and including 30 years of age	20	4.43
Over 30 up to and including 40 years of age	103	22.84
Over 40 up to and including 50 years of age	163	36.14
Over 50 years of age	165	36.59
Level of education		
III, IV, or V level of education	55	12.20
VI level of education	204	45.23
VII level of education	170	37.69
VIII level of education	22	4.88
Accountant's workplace		
Internal accountant in a company	325	72.06
Accounting service company	126	27.94
Possession of a professional certificate		
Without a certificate	381	84.48
Have a certificate	70	15.52
Size of the organisation		
Large	69	15.30
Medium-sized	119	26.39
Small	123	27.27
Micro	140	31.04

Source: Research results.

respondents have a level of education equal or lower than V. Our sample includes 27.94% of accountants working in an accounting firm which provides external accounting services and 72.06% of those working as internal accountants in an organisation. In the sample, 84.48% of accountants do not have a professional certificate, while 15.52% of them do have one. Finally, 15.3% of the sample are large companies, 26.39% medium-sized, 27.27% small and 31.04% micro companies. Most of the large- (95.65%), medium-sized (94.12%) and small companies (79.67%) have internal accountants, while most micro companies from the sample (65%) have external accounting service providers. Descriptive statistics show that survey respondents are largely female (86.92%), older than 40 years (almost 60%), most of them have at least higher education (87.8%), and most do not have a professional certificate (84.48%).

#### **4.2. Results of the research**

The results of our ordered probit regression analysis are presented in Table 3. The results show that we found no statistically significant relationship between the level of acceptability of ethically-sensitive scenarios and gender, age, and level of education. Statistically significant results were found for an accountant's workplace and professional certificate.

An accountant's workplace (internal accountant in an organisation or external accountant employed in an accounting service company) is found to be statistically significant in the case of six scenarios. As significant were found the following vignettes:

- Q1: Organisations engage in earnings management to hide earnings or loss.
- Q2: Organisations engage in earnings management in order to facilitate bank loan approval.
- Q4: Organisations postpone expenses from the end of the current financial period to the beginning of the next financial period to meet current year's profit target.
- Q7: To meet the annual profit target, organisations do not record adjustments of accounts receivable, even if they know that they are non-collectible.
- Q8: To meet annual profit targets, an organisation asks a consulting firm, currently performing services for the company, not to send an invoice until next year.
- Q9: To meet annual sales target, organisations record sales that are going to be realised in the first quarter of the next financial year already in the current financial year.

Accountants employed in accounting service companies are more likely to evaluate Q1, Q2, Q4, Q7, Q8, and Q9 as ethical practice. All coefficients are found to have the positive sign, showing that 'external accountants' are more lenient in comparison to 'internal accountants' working in organisations, while evaluating ethically-sensitive scenarios.

Accountants working in firms providing external accounting services are 2.6 percentage points more likely to evaluate earnings management for external financial reporting purposes (Q1) as ethical practice. Accountants working in firms providing external accounting services are also 5.4 percentage points more likely to evaluate earnings management for bank purposes (Q2) as ethical practice ( $p < 0.01$ ). Results show that earnings management is more acceptable for accountants from accounting firms providing external accounting services in comparison to 'internal accountants'.

We found no statistically significant difference in the case of earnings management for tax purposes. The mean response of this vignette was the highest among all 10 vignettes (it

**Table 3.** Results of ordered probit regression analysis – marginal effects.

VARIABLES	Q1	Q2	Q3	Q4	Q5
Intercept	-1.656** (0.329)	-1.281*** (0.335)	-1.327*** (0.333)	-1.211*** (0.341)	-1.953*** (0.389)
Gender = 1, female	0.003 (0.007)	-0.006 (0.018)	-0.003 (0.011)	-0.007 (0.018)	-0.001 (0.007)
Age = 1, 30–40 years	-0.010 (0.016)	-0.011 (0.033)	-0.047 (0.033)	-0.050 (0.052)	-0.015 (0.018)
Age = 2, 41–50 years	-0.015 (0.016)	-0.025 (0.032)	-0.046 (0.033)	-0.073 (0.051)	-0.017 (0.018)
Age = 3, 50+ years	-0.014 (0.016)	-0.021 (0.032)	-0.041 (0.033)	-0.065 (0.051)	-0.013 (0.018)
Education = 1, VI level	-0.004 (0.010)	-0.010 (0.019)	-0.004 (0.011)	-0.006 (0.022)	0.001 (0.008)
Education = 2, VII level	-0.002 (0.010)	-0.018 (0.019)	-0.003 (0.012)	-0.024 (0.022)	-0.004 (0.009)
Education = 3, VIII level	0.001 (0.015)	-0.033 (0.022)	0.015 (0.028)	-0.035 (0.025)	-0.005 (0.011)
Accountant's workplace = 1, accounting service company	0.026** (0.010)	0.054*** (0.016)	0.015 (0.010)	0.035** (0.015)	0.011 (0.007)
Certificate = 1, certificate	-0.008 (0.006)	-0.018* (0.011)	-0.002 (0.008)	-0.028*** (0.011)	-0.009* (0.005)
Observations	451	451	451	451	451
Pseudo R-squared	0.0177	0.0218	0.00928	0.0205	0.0116
VARIABLES	Q6	Q7	Q8	Q9	Q10
Intercept	-1.935*** (0.387)	-1.261*** (0.376)	-1.311*** (0.343)	-1.440*** (0.361)	-1.848*** (0.393)
Gender = 1, female	0.004 (0.007)	0.014 (0.010)	-0.002 (0.015)	0.006 (0.007)	0.001 (0.006)
Age = 1, 30–40 years	-0.007 (0.021)	0.003 (0.033)	-0.026 (0.040)	-0.018 (0.025)	0.000 (0.014)
Age = 2, 41–50 years	-0.013 (0.020)	-0.017 (0.032)	-0.055 (0.039)	-0.028 (0.025)	-0.012 (0.014)
Age = 3, 50+ years	-0.011 (0.021)	-0.025 (0.032)	-0.058 (0.039)	-0.028 (0.025)	-0.004 (0.014)
Education = 1, VI level	0.002 (0.010)	-0.012 (0.020)	-0.005 (0.020)	-0.004 (0.014)	-0.011 (0.013)
Education = 2, VII level	-0.003 (0.010)	-0.023 (0.020)	-0.011 (0.020)	-0.014 (0.014)	-0.014 (0.013)
Education = 3, VIII level	-0.002 (0.014)	-0.041** (0.022)	-0.025 (0.025)	-0.019 (0.016)	-0.018 (0.014)
Accountant's workplace = 1, accounting service company	0.012 (0.008)	0.042*** (0.014)	0.023* (0.012)	0.016* (0.008)	0.004 (0.005)
Certificate = 1, certificate	-0.012** (0.006)	-0.012 (0.009)	-0.019* (0.011)	-0.006 (0.007)	-0.004 (0.005)
Observations	451	451	451	451	451
Pseudo R-squared	0.00757	0.0237	0.0132	0.0141	0.0121

Standard errors in parentheses.

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ .

Source: Research results.

is the most non-acceptable). It seems that all analysed accountants have a similar opinion regarding this issue.

Q4, Q7, and Q8 were also statistically significant, showing that 'internal' and 'external' accountants' opinions differ mostly when scenarios refer to expenses. In all three of these scenarios expenses are postponed. These scenarios have the lowest mean level of responses, expressing the lowest level of non-acceptability.

Among all significant vignettes the largest difference between accountants working in accounting firms providing external accounting services and accountants working internally in organisations is present in the case of the second vignette (earnings management for bank purposes). We believe that this occurrence is a consequence of the current financial crisis, which has led to limited possibilities for bank financing. Since bank financing is the most common source of financing in Slovenia, we believe that accountants were under pressure by management. External accounting service providers were under additional pressure, since they provide their services based on contract work.

Since not all of the vignettes were found to be statistically significant, we can only partially confirm our first hypothesis. Still, our results do show that accountants from firms providing accounting services in Slovenia have different opinions about ethically-sensitive scenarios.

Since we had to exclude from our regression analysis the variable measuring the size of organisations, we performed an additional test. Results of the independent t-test show that the mean values of vignettes significantly differ between large and micro organisations (seven out of 10 vignettes). In four out of 10 vignettes the mean values are also significantly different between large and small companies and moreover between medium-sized and micro companies. Accountants working in smaller companies are more lenient regarding ethically-sensitive scenarios.

Our second hypothesis was tested with the fifth independent variable named 'possession of a professional certificate.' We can notice from the results that this variable resulted as statistically significant in five out of 10 scenarios. As significant were found the following vignettes:

- Q2: Organisations engage in earnings management in order to facilitate bank loans approval.
- Q4: Organisations postpone expenses from the end of the current financial period to the beginning of the next financial period to meet current year's profit target.
- Q5: Registering supplies in the next accounting period, to meet targeted profitability ratios.
- Q6: Increasing the write-off of inventory, even if it is likely to be sold, due to exceeded profit targets.
- Q8: To meet annual profit targets, an organisation asks a consulting firm, currently performing services for the company, not to send an invoice until next year.

The most significant was found the Q4 showing that accountants having a professional certificate are 2.8 percentage points less likely to report Q4 as an ethical practice. Q4 was statistically significant already in the case of independent variable 'accountant's workplace.'

We found that earnings management for purposes of bank loan approval is not only the most acceptable among Q1–Q3 practices, but it also statistically differs between accountants having a professional certificate and those that do not. Q2 is significant in both hypothesis testing.

In all vignettes that have significant results, accountants having a certificate are less likely to evaluate these vignettes as ethical practice. We can confirm the second hypothesis only partially, since 50% of vignettes resulted as significant.

Finally, we cannot confirm the third hypothesis. Gender was not found as significant in any of the vignettes. These results do not support up to date studies, which found gender as an important explanatory variable.

### 4.3. Assumptions and limitations

Authors are aware of the following limitations. This study cannot predict earnings management intention, since ethical attitudes do not necessarily imply behaviour. Due to respondents' time constraints, this study does not explore an individual's moral philosophy. This study does not distinguish between accounting manipulations (reflected in financial reports) that are beneficial for the company and those that benefit management figures individually. We are aware that individuals might have a desire to appear consistent and rational in their responses; i.e., the consistency motif (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). They might have given a different answer than their intended behaviour.

In a letter accompanying the questionnaire we emphasised that the survey is completely anonymous. Thus, we attempted to avoid the problem of social desirability, pursuant to which a portion of individuals tend to present themselves in a favourable light, regardless of their true feelings (Podsakoff et al., 2003). Research has shown (for more details see Podsakoff et al., 2003) that face-to-face interviews tend to induce more socially desirable responses in comparison to computer-administered questionnaires. Since we have used an online questionnaire, we believe that respondents gave fair and true responses.

## 5. Conclusion

The presented study contributes to the literature in a number of ways. Firstly, the findings contribute to the literature from the field of post-transition economies. Up-to-date studies were done almost exclusively on samples of traditionally developed countries. Our study is, to the best of our knowledge, the first that explores the ethical attitudes of accountants (bookkeepers, preparers of annual financial and tax reports) working in accounting firms providing external accounting services which are not regulated by the profession.

In line with our expectations we found statistically significant differences in the level of ethics between 'internal accountants' and accountants working in 'firms providing external accounting services.' In 60% of the vignettes our results show that accountants working in firms providing external accounting services are more likely to evaluate an ethically sensitive scenario as an ethical practice. Since 'external accountants' provide their services based on contract work, we believe that they are more affected by requirements of their clients. If they wish to extend their contract work they have to satisfy client's demand.

The results of our study also show that accountants from small firms are more lenient regarding ethically-sensitive scenarios. Since findings of up-to-date research are mixed and very little research has been reported on differences in ethical decision-making associated with firm size (Gunz et al., 2002) our results are also an important contribution in this area of research.

The contribution of the study also refers to the analysis of the effect of professional certificates, since in Slovenia accountants are not required to have any professional certificate. All accountants that have a certificate were additionally educated on their voluntary basis. Thus, we expected that those accountants that have a professional certificate will evaluate ethically-sensitive scenarios more harshly. In line with our expectation the results show that accountants having a certificate are less likely to evaluate an ethically-sensitive situation as ethical practice. The results were significant in 50% of the vignettes.



Contrary with the previous studies which found gender (Conroy et al., 2010; Emerson et al., 2006; Franke et al., 1997; St. Pierre et al., 1990) and age (Conroy et al., 2010; St. Pierre et al., 1990; Emerson et al., 2006) as important factors in predicting individuals' ethical attitudes, our study found no such relation. In none of the vignettes gender or age were found as significant predictors of ethical perceptions. Our results do not support previously published findings.

Our results show that accounting practitioners in Slovenia are not lenient to ethically-sensitive scenarios. The vignettes were evaluated on a range from minor infraction to serious infraction. The analysis is made on a large sample of 451 accounting practitioners.

Future research could analyse other post-transition or emerging economies with limited regulation of the accounting profession. Thus, future research could provide more evidence regarding the consequences of a non-regulated market on service quality and earnings quality. Future studies could determine whether the profession should be more strictly regulated.

## Notes

1. Unfortunately, there is no statistical evidence about the total number of accountants working in Slovenia.
2. The only exception is the auditing profession, which is regulated, but that is not subject to our analysis.
3. The results of up-to-date research is mixed and very little research has been reported on differences in ethical decision-making associated with firm size (Gunz et al., 2002).
4. We also examined the size of the organisation where the respondent is working. However, we had to exclude this variable from the regression model because of a relatively high correlation ( $-0.53$ ) between the variables »accountant's workplace« and »size of the company« (problem of multicollinearity).

## Disclosure statement

No potential conflict of interest was reported by the authors.

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## Appendix

Questionnaire – Earnings management scenarios adopted from Elias (2002).

Indicate your judgement as to the acceptability of the following scenarios. 1 indicates the highest level of ethical practice, while 5 indicates totally unethical practice.

1=Ethical practice.

2=Questionable practice. It makes me uncomfortable.

3=Minor infraction. The responsible person should not engage in this practice.

4=Serious infraction. The responsible person should be severely reprimanded. Warning should be more severe.

5=Totally unethical. The responsible person should be penalized.

Scenarios: Managing accounting categories within annual reporting periods

Q1: Organisations engage in earnings management to hide earnings or losses.

Q2: Organisations engage in earnings management in order to facilitate bank loans approval.

Q3: Organisations engage in earnings management for tax purposes.

Q4: Organisations postpone expenses from the end of the current financial period to the beginning of the next financial period to meet current year's profit target.

Q5: Supplies received in December are not registered until following February, to meet targeted profitability ratios.

Q6: Organisations increase the write-off of inventory, even if it is likely to be sold, due to exceeded profit targets. Q7: To meet the annual profit target, organisations do not record adjustments of accounts receivable, even if they know that they are non-collectible.

Q8: To meet annual profit targets, organisation asks a consulting firm, currently performing services for the company, not to send an invoice until next year.

Q9: To meet annual sales target, organisations record sales that are going to be realized in the first quarter of the next financial year already in the current financial year.

Q10: Organisations record a part of sales in the next year's financial accounts instead of current year's accounts, not to exceed sales target.

## Demographic data

Gender:

- Female
- Male

Age:

- Up to and including 30-years-old
- Over 30 up to and including 40-years-old
- Over 40 up to and including 50-years-old
- Over 50-years-old

Level of education:

- III, IV or V – Pre-higher education
- VI – Professional Bachelor, Academic Bachelor, Pre-Bologna professional higher education, Specialisation following old short cycle higher education

- VII – Master’s degree, Pre-Bologna academic higher education, Specialisation following pre-Bologna professional higher education, Old higher education
- VIII – Specialisation diploma following academic higher education; Pre-Bologna research master, Doctoral degree

\*levels of education are in conformity with the education system in Slovenia. Listed levels of education include educational programs before and after the Bologna process. Indicated levels of education do not include special accounting training conducted beyond formal education

Do you work as an accountant in an external accounting service?

- Yes
- No

Do you have a professional certificate for accountants?

- Yes
- No