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# Influence of theory, seniority, and religiosity on the ethical awareness of accountants

Ali Uyar, Cemil Kuzey, Ali Haydar Güngörmüs and Ruth Alas

Ali Uyar is Associate Professor, at Faculty of Economics and Administrative Sciences, Fatih University, Istanbul, Turkey. Cemil Kuzey and Ali Haydar Güngörmüs are both based at Faculty of Economics and Administrative Sciences. Fatih University, Istanbul, Turkey. Ruth Alas is based at Estonian Business School, Tallinn, Estonia.

#### **Abstract**

Purpose - This study aims to investigate the influence of ethical theories, religiosity and seniority on the ethical awareness of accountants.

Design/methodology/approach - The data were collected by using a questionnaire survey completed by 219 accountants located in various locations in Turkey. To investigate the relationship between constructs, the partial least square structural equation model was implemented.

Findings - The findings indicated that seniority in the profession and religiosity have a positive influence on ethical awareness. Within the theoretical approaches, deontology has a positive influence on ethical awareness, whereas egoism has a negative one.

Research limitations/implications - The study has some implications regarding enhancing the ethical awareness of accountants: accountants who are in the early stages of their career development should be made aware of the ethical issues they face in their professional life; accountants should be taught laws and regulations of accountancy profession from the entry level throughout their working life; through professional associations, some initiatives may be taken to involve accountants in social responsibility programs to curb selfish behavior and improve empathy. However, a questionnaire survey does not permit an investigation from a qualitative perspective (the whys and hows of the answers); thus, further case studies might be necessary to make detailed investigations.

Originality/value - This study is unique in that it tries to answer what factors comprehensively influence the ethical awareness of accountants in an emerging market context.

**Keywords** Ethics, Theory, Religiosity, Accountants, Accounting, Seniority Paper type Research paper

#### Introduction

The importance of ethical behavior in business life has once again been emphasized following several worldwide corporate scandals. These scandals revealing corruption are largely due to the misconduct of accounting practice; Ogrean et al. (2008) consider accounting irregularities as one of the main reasons for corruption. The makings of an accountant do not depend solely on technical knowledge, but also include ethical awareness in the face of serious ethical issues and dilemmas. Thus, the necessity for practicing accountants to have ethical awareness is key in preventing future scandals. As well, the efficient operation of capital markets depends on the reliability of the information in the financial statements prepared by the accountants employed by corporations (Geiger and O'Connell, 1999).

Previous studies of ethics in the accounting field have been carried out with various samples such as students (Grasso and Kaplan, 1998; Ge and Thomas, 2008; Low et al., 2008; Geiger and O'Connell, 1999; Keller et al., 2007; Sin et al., 2012; Holmes et al., 2012), accountants/auditors (Shafer et al., 2001; Buchan, 2005; McManus and Subramaniam, 2009; Marshall et al., 2010; Karacaer et al., 2009; Uyar and Güngörmüş, 2013; Kung and Huang, 2013) or a combination of both (Cohen et al., 2001; Lan et al., 2009). In addition, earlier studies have frequently investigated the effects of gender, age, personal values and

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religiosity on ethical awareness. However, the effect of hierarchical positions and theoretical approaches on ethical awareness has not been well-examined. In an early study, Weeks et al. (1999) investigated the effect of the stage of an individual's career on the ethical judgment of business professionals in the USA, finding that professionals in later career stages exhibit higher ethical judgment than those in beginning career stages. In a recent study, Eweje and Brunton (2010) examined the influence of work experience on the ethical awareness of business students in New Zealand, proving that there is a significant relationship between the two variables. The current study attempts to demonstrate the existence of this association within a sample of Turkish professional accountants. It was expected that the Turkish accountants' work experience might positively influence their ethical awareness, as more experienced accountants feel more secure in their jobs, experience less pressure from their managers and earn a higher income.

The religiosity of individuals also plays an important role in their ethical attitudes. Enderle (2003, p. 91) argues that the "majority of human beings adhere to the world's religions, which offer a wealth of ethical resources". According to Islam, which is one of the major world religions with approximately 2 billion followers, "people are accountable to God, and their behavior and deeds in this life will affect their treatment in the afterlife" (Tsalikis and Lassar, 2009, p. 91). Muslims believe that the Qur'an (the holy book of Islam) and the Sunnah (the recorded sayings and deeds of the Prophet Muhammad) provide the answers to all ethical questions (Rice, 2006). Thus, keeping in mind that over 90 per cent of Turkey's population is Muslim, it can be argued that the degree of religiousness of Turkish accountants is likely to influence their ethical attitudes. Many prior studies have investigated the effect of belief in various religions together with the degree of a person's religiosity on ethical awareness. These findings will be elaborated in the section regarding theoretical approaches.

Determining the factors that influence the ethical awareness of accountants is important, as it enables policy-makers to develop policies, helps universities develop an ethics curriculum and motivates employers to improve their culture of organizational ethics. This study is particularly relevant to accountants who are in the early stages of their professional life, as they are prone to being pressured by their superiors to act immorally when facing ethical dilemmas. In addition, they may be afraid of losing their job or not being promoted. This paper differentiates itself from previous studies in several ways. Many prior studies have been carried out with general business professionals and business students, thus more evidence is needed regarding the accounting profession as well as professional accountants. Furthermore, earlier studies have utilized the traditional statistical tools for hypotheses testing (Weeks et al., 1999; Cohen et al., 2001; Ge and Thomas, 2008; Lan et al., 2009; Holmes et al., 2012), but this study has used the partial least squares (PLS) structural equation modeling (SEM) method to assess the proposed theoretical model in this study. PLS is able to test the structural model as well as the measurement model. The structural model includes the relationships between constructs, while the measurement model shows the relationships between the indicators and their corresponding latent variables. According to Barclay et al. (1995), PLS is able to deal with very complex models having many constructs, indicators and relationships. In this study, religiosity was measured comprehensively by using the seven-item scale based on Aydemir and Eğilmez (2010) and Allport and Ross (1967), unlike some prior studies that used a one-item to five-item scale (Conroy and Emerson, 2004; Wong, 2008; Emerson and Mckinney, 2010; Walker et al., 2012). Moreover, the effect of more work experience, hierarchical position and income level on ethical attitudes was evaluated; this study takes these three variables jointly in the name of seniority, testing its effect on the ethical awareness of accountants. Most importantly, this study tested the influence of theoretical approaches on ethical awareness through eight vignettes, unlike prior studies (Keller et al., 2007; Modarres and Rafiee, 2011) which investigated the association of demographic factors with these theoretical approaches.

The paper is organized as follows: in the next section, information regarding accountancy education and the profession in Turkey is provided briefly. In the third section, hypotheses are developed, based on previous literature. In the fourth section, the methodology and a sample of the empirical study are presented. This is followed by an analysis of the results. The last section provides concluding comments, the limitations of the study and directions for further research.

# Accountancy education and profession in Turkey

Currently, accountancy education starts at the high school level and continues right up to doctoral programs which incorporate accounting education in Turkey. Initially, vocational high schools provide commercial education to the students through their various options, which include accounting. High school students complete an internship, which makes it possible to work in private companies as accounting personnel after graduation. If they wish to continue with their education, they have an opportunity to enter two-year colleges directly. Two-year colleges have specific programs in accounting and tax applications. Students in these programs must participate in mandatory internships, which qualifies them to work in private firms as accountants. There are four-year faculty programs in which accounting courses are offered to the students in business and economics programs. Finally, master's and doctoral programs in accountancy and auditing are widespread throughout Turkish universities.

Accountancy was formally recognized as a profession by way of law number 3568, which was enacted on June 1, 1989. Accountants may work in governmental organizations, companies and public accounting firms. To work as accountants or auditors in governmental organizations, job applicants have to pass specific examinations. There are no stated requirements for people who choose to work as accountants in the private sector; however, the accounting knowledge of job applicants or possessing a diploma from an accountancy program is considered an important element by employers. Public accounting firms provide accountancy service to private firms, which include bookkeeping, preparation of financial reports, tax filings and formal certifications.

#### Theoretical framework

In this part, we provided the theoretical background of the study. In this context, we reviewed six theories (i.e. utilitarianism, deontology, egoism, amoral approach, seniority and ethics, religiosity and ethics) that are likely to influence ethical behaviors of accountants.

### Utilitarianism

Utilitarianism seeks to bring about good for the greatest number of people (Cohen *et al.*, 1996, 2001; Armstrong *et al.*, 2003; Granitz and Loewy, 2007; Modarres and Rafiee, 2011; Rossy, 2011). According to this theoretical approach, any act is moral if it will produce the greatest net benefits for society as a whole (Lahdesmaki, 2005), meaning the benefits for the majority will be maximized while reducing costs (Ge and Thomas, 2008). Thus, the moral acceptability of an action is derived from its consequences (Cohen *et al.*, 1996). If the consequences are good, the action is considered ethical; otherwise, it is unethical or immoral (Viviers *et al.*, 2008). This theoretical approach has been criticized by some researchers, as the result determines the action's morality, regardless of whether or not the means are moral. Another criticism is that the greatest good might be realized at the expense of minority. Kujala *et al.* (2011) carried out a study in Finland, finding that utilitarianism was the dominant theory in making moral decisions among business managers. Thus, the following hypothesis was formulated:

H1. There is a significant positive association between utilitarianism and ethical awareness.

# Deontology

Deontological ethics concerns moral obligations, duties, responsibilities and principles, regardless of the consequences of an action; therefore, an action is ethical only if it conforms to moral principles (Viviers et al., 2008). This theory thus focuses not on the results of an action, but on the action itself (Keller et al., 2007; Modarres and Rafiee, 2011). This theoretical approach is reflected in professional codes of conduct (Cohen et al., 1996) which may guide accountants in identifying what is ethical or unethical. Thus, the following hypothesis was developed:

H2. There is a significant positive association between deontological approach and ethical awareness.

#### Egoism

The objective of egoism is to maximize personal interest while making a moral decision. Thus, an act is considered ethical if it serves the long-term or short-term interest of an individual (Cohen et al., 1996). Egoism and utilitarianism are similar in that they are both based on the consequences of the action rather than the means. Individuals who follow this approach in moral decision-making have no qualms about sacrificing others in favor of their own interests (Granitz and Loewy, 2007). According to this philosophy, an immoral act is justified unless an individual is caught while committing it. Thus, the following hypothesis was formulated:

H3. There is a significant negative association between egoism and ethical awareness.

# Amoral approach

The amoral approach posits that accounting decisions and ethics are not related (Keller et al., 2007). Hence, an accountant does not assume that he/she will face ethical dilemmas. Thus, the following hypothesis was formulated:

H4. There is no significant association between amoral approach and ethical awareness.

#### Seniority and ethics

Career researchers classify career development into four stages: exploration, establishment, maintenance and disengagement (Cron, 1984). In the exploration stage, an individual seeks to find a job in which he or she can succeed (Cron, 1984). The establishment stage is the period when stability has been reached in the career, thereby acquiring the fundamental requirements of the profession and having obtained promotions (Cron, 1984). The maintenance stage is characterized by reduced competitiveness, high job security and the achievement of many occupational goals (Eweje and Brunton, 2010). In the disengagement stage, the employee is gradually transiting from organizational life to retirement (Cron. 1984; Eweie and Brunton, 2010), According to Eweie and Brunton (2010), it is argued that as an individual progresses through their career development stages; he or she tends to compromise ethical values less, because the fear of losing their job lessens; their experience increases; alternative job opportunities arise; their income level increases; and new job positions are acquired. Weeks et al. (1999) and Eweje and Brunton (2010) found evidence that professionals in the higher career development stages demonstrated higher ethical judgment than those in the lower stages. Therefore, it was assumed that seniority (i.e. experience, income level, title) influences ethical awareness, and the following hypothesis was developed:

H5. There is a significant positive association between seniority (i.e. S1: experience, S2: income level. S3: title) and ethical awareness.

# Religiosity and ethics

Some studies have dealt with the topic of ethics from the religious perspective. The findings of those studies generally supported the positive influence of religiosity on ethical awareness (Rice, 2006; Lam and Shi, 2008; Wong, 2008). Phau and Kea (2007) found that students who practiced their religion tended to consider themselves more ethical than those who did not. An increase in income increases the possibility of a person being ethical for followers of both the Christian and traditional Chinese religions, but that is decreased in the non-religious group (Lam and Hung, 2005).

Religion is one of the frequently mentioned determinants of moral values (Emerson and McKinney, 2010). According to this approach, religion plays an important role in guiding what is right or wrong in decision-making, and God is seen as the source of the ethical standard (Modarres and Rafiee, 2011; Keller et al., 2007). The major world religions teach morality, disapproving of unethical actions (Emerson and McKinney, 2010). Religions help their followers to behave honestly. Religious people know that they are accountable for their acts in the hereafter, as well as in this world. They are aware that good deeds will be rewarded and misdeeds will be punished sooner or later. Thus, the following hypothesis was formulated:

H6. There is a significant positive association between religiosity and ethical awareness.

# Methodology of the study

Previously, many studies have utilized questionnaire surveys to carry out similar ethics research in accounting (Weeks et al., 1999; Cohen et al., 2001; Caliyurt, 2007; Ge and Thomas, 2008; Lan et al., 2009; Eweje and Brunton, 2010). As a data collection methodology, a questionnaire survey has some advantages. It is a practical way of collecting data from a large number of sources within a limited time, while requiring less allocation of money. It enables researchers to test hypotheses, to reach a conclusion and infer implications through software packages. It provides opportunity and saves time in carrying out comparative studies. There has been an increasing trend to utilize online questionnaires recently. The advantages of online questionnaires over traditional questionnaires are perceived as being less costly, faster and more reliable (Uyar and Gungormus, 2011). The questionnaire used in this study was developed based on a review of earlier studies, and put on the World Wide Web. The back translation method was used, as the original language of the questionnaire was in English. The survey questions were translated from English to Turkish by three academicians in the field of accounting. Following this procedure, the questions were checked by a native speaker in both languages to eliminate minor translation issues. Thereafter, the questionnaire was ready to be used. Data were collected during the months of November and December 2011. A total of 219 accountants replied to the survey. The questionnaire consisted of four sections:

- 1. Religiosity scale items as denoted below:
  - R1: I enjoy reading about religion.
  - R2: It is important for me to spend time in prayer.
  - R3: I have had a strong sense of God's presence.
  - R4: I try to live all my life according to my religious beliefs.
  - R5: I try to participate in religious services
  - R6: Prayer gives me peace and happiness.
  - R7: Religion comforts me in times of difficulties (Source: Allport and Ross, 1967 and Aydemir and Eğilmez, 2010).

- Theoretical approaches as provided in Table I. 2.
- Demographics as shown in Table II.
- Vignettes as documented in the Appendix, and based on several earlier studies (Cohen et al., 1996; Allport and Ross, 1967; Aydemir and Eğilmez, 2010; Modarres and Rafiee, 2011; Keller et al., 2007).

To investigate the religiosity of the respondents, religiosity scale of Allport and Ross (1967) and Aydemir and Eğilmez (2010) was modified for this study. The scale investigated the religiosity of the respondents from several perspectives: belief in God, attending religious services, reading religious books, praying and so on (as mentioned above). To evaluate the religious commitment of the respondents, a five-point Likert scale was utilized, ranging from 1 (strongly disagree) to 5 (strongly agree).

To investigate the influence of theories on ethical awareness, eight statements were provided to the respondents, of which every two belonged to one theoretical approach. Each statement was evaluated based on a Likert scale of 1 (strongly disagree) to 5 (strongly agree). These statements were adapted from Keller et al. (2007) and Modarres and Rafiee (2011). The statements regarding every theoretical approach are provided in Table I.

Eight vignettes which were adapted from Cohen et al. (1996) were provided to the respondents, who were required to evaluate these vignettes based on a Likert scale of 1 (not morally right) to 7 (morally right). The vignettes are given in the Appendix.

A PLS SEM was constructed to test both the reliability and validity of the measurement and the structural model. The measurement model represented the relationship between manifest variables (measurable items) and unobserved latent variables, while the structural model focused on the hypothesized relationship between the latent variables (Hair et al., 1998). This model was chosen because it had no distributional requirements and it was also suitable for relatively small sample sizes (Barclay et al., 1995; Chin, 1998). In this study, the measurable items were used as reflective indicators. In SEM methodology, there are reflective and formative measurement models. In this study, the reflective measurement model was used rather than the formative approach for various reasons:

- the latent construct existed independent of the measurements used:
- the variation in the construct caused a variation in the item measurements:
- this variation did not cause a variation in the construct;
- the items shared a common theme;
- the items were interchangeable so that adding or dropping an item did not change the conceptual domain of the construct; and

Theory	Relevant statements
Utilitarian	U1: I take into consideration the public interest and I will take decisions which are in favor of most people U2: I think that what is right for greatest number of people is ethical
Deontological	D1: Observing accounting standards or codes of professional ethics can reduce, or even eliminate, being confronted by ethical dilemmas
	D2: I obey laws, accepted principles or accounting standards
Egoistic	E1: What is good for me is the basis for my ethical decision-making E2: I will choose the alternatives which are the best for me
Amoral	A1: There is no relation between accounting and ethics A2: As an accountant, I don't expect to confront ethical dilemmas

Table II Demographic background of the response	ondents	
Variables	Frequency	(%)
I. Gender Female Male Total	40 <u>179</u> 219	18.3 <u>81.7</u> 100.0
II. Experience 1-5 years 6-10 years 11-15 years 16-20 years Over 20 years Total	62 62 41 23 <u>31</u> 219	28.3 28.3 18.7 10.5 14.2 100.0
III. Education High school Two-year college Faculty Master's degree/PhD Total	9 13 144 <u>53</u> 219	4.1 5.9 65.8 <u>24.2</u> 100.0
IV. Title Intern Independent Accountant Certified Public Accountant (CPA) Sworn-in Certified Public Accountant (SCPA) No title Total	66 14 106 6 <u>27</u> 219	30.1 6.4 48.4 2.7 12.3 100.0
V. Income level Less than 1,000 TL <sup>a</sup> 1,000-3,000 TL 3,000-5,000TL 5,000-10,000TL Over 10,000 TL Total	11 134 48 24 <u>2</u> 219	5.0 61.2 21.9 11.0 <u>0.9</u> 100.0
VI. Cities Istanbul Bursa Ankara Kayseri Kütahya Others (less than 5) Total	128 26 15 13 5 32 219	58.4 11.9 6.8 5.9 2.3 14.6 100.0
Notes: aTurkish liras; underlined data signifies the total	al of respondents	

the items should have had high positive intercorrelations in reflective models (Edwards and Bagozzi, 2000).

Smart PLS 2.0 M3 (Ringle et al., 2005) software was used to test the proposed model as the analysis tool in this research. The results are shown below.

# The sample

The sample was selected randomly from a database of professional accountants of Chambers of Certified Public Accountants and Sworn in Certified Public Accountants. The questionnaire was posted online, and the link was sent to 1,523 survey participants via e-mail during November and December 2011. In all, 219 accountants from the largest cities in the country returned the questionnaire; hence the response rate was 14.4 per cent. This response rate is comparable to similar other ethics studies such as Shafer et al. (2001) with 15 per cent, Elias (2002) with 15.2 per cent, McManus and Subramaniam (2009) with 14.3 per cent, Marshall et al. (2010) with 23.6 per cent and Vitell et al. (2011) with 8.5 per cent. Consequently, the study is a nation-wide study, rather than a single-city study. The majority of respondents were male (81.7 per cent), with only 18.3 per cent being female. Furthermore, the majority of respondents had experience consisting of less than or equal to 10 years (56.6 per cent), while 43.4 per cent of the respondents had more than 10 years' experience. Most respondents were graduates of faculties or holders of a master's degree or PhD (90 per cent). The majority earned between 1,000 and 3,000 TL a month. The highest percentage in job title belongs to Certified Public Accountants with 48.4 per cent. The demographic background of the respondents is provided in Table II.

The descriptive statistics regarding the constructs are provided in Table III. The theoretical constructs were measured by a Likert scale of 1 (strongly disagree) to 5 (strongly agree); ethical awareness was measured by a Likert scale of 1 (not morally right) to 7 (morally right). The seniority items were measured categorically. On average, the respondents did not find the cases described in the vignettes ethical, as the mean value (1.94) indicates. Minimum and maximum values ranging between 1 and 5 in the theoretical approaches indicated that there are both opponents and proponents of ethical approaches.

# Research findings

#### Measurement model

To assess how well the given indicators explained the construct, testing of the measurement model was crucial. Therefore, the factor loadings, composite reliability, average variance extracted (AVE), Cronbach's alpha, communality, convergent validity and discriminant validity were used for testing the measurement model. In essence, the reliability and internal consistency of the model were tested. Table IV shows the AVE, composite reliability, Cronbach's alpha and communality scores for analyzing the robustness and reliability of the measurement model.

According to the results, all the scores were above or near the threshold values. AVE scores for each construct ranged from 0.525 and 0.683, which exceeded the suggested threshold value of 0.5 (Fornell and Larcker, 1981). The composite reliabilities were well above the recommended threshold value of 0.7 (Nunnally, 1978); however, values below 0.7 have been considered acceptable (Hair et al., 1998). Among established constructs, only "Utilitarianism's" composite value was lower than the commonly accepted threshold value of 0.7.

Convergent validity was used for assessing each indicator's relationship with the connected construct. The analysis of convergent validity is shown under factor loadings in Table IV, which shows how well each indicator was correlated with the construct with which

Table III Descriptive statistics								
Constructs	N	Minimum	Maximum	Mean	SD			
	219	1.00	5.00	2.26	0.82			
Deontology <sup>a</sup>	219	1.00	5.00	3.86	0.71			
Egoism <sup>a</sup>	219	1.00	5.00	3.33	0.99			
Religiosity <sup>a</sup>	219	1.00	5.00	4.21	0.82			
Utilitarianism <sup>a</sup>	219	1.00	5.00	3.90	0.74			
Ethics awareness <sup>b</sup>	219	1.00	7.00	1.94	1.18			
Seniority (experience) <sup>c</sup>	219	1.00	5.00	2.54	1.37			
Seniority (income level) <sup>d</sup>	219	1.00	5.00	2.42	0.79			
Seniority (title) <sup>e</sup>	219	0.00	4.00	1.99	1.18			

Note: aMeasured by Likert scale of 1 (strongly disagree) to 5 (strongly agree); bmeasured by Likert scale of 1 (not morally right) to 7 (morally right); <sup>c</sup>categorical variable (1 = 1-5 years, 2 = 6-10 years, 3 = 11-15 years, 4 = 16-20 years, 5 = over 20 years); dcategorical variable (1 = less than 1,000 TL, 2 = 1,000-3,000 TL, 3 = 3,000-5,000 TL, 4 = 5,000-10,000 TL, 5 = over 10,000 TL); ecategorical variable (0 = No title, 1 = Intern, 2 = Independent Accountant, 3 = Certified Public Accountant [CPA], Sworn-in Certified Public Accountant [SCPA])

Constructs	Loadings	Average variance extracted (AVE)	Composite reliability	$\mathbb{R}^2$	Communality
Amoral	0.693	0.587	0.738	-	0.587
	0.833				
Seniority	0.757	0.628	0.834	-	0.628
	0.897				
	0.712				
Deontology	0.635	0.592	0.739	-	0.592
	0.884				
Egoism	0.890	0.661	0.794	-	0.661
	0.728				
Ethics awareness	0.719	0.566	0.796	0.180	0.566
	0.736				
	0.799				
Religiosity	0.857	0.683	0.938	-	0.683
	0.858				
	0.729				
	0.827				
	0.795				
	0.857				
	0.855				
Utilitarianism	1.00	N/A	N/A	_	N/A

it is connected. At the beginning of the analysis, there were eight vignettes  $(V_1, V_2, \ldots, V_8)$ for measuring "ethics awareness" construct. After running the analysis, three vignettes (V2, V<sub>4</sub> and V<sub>7</sub>) with more than threshold factor loading values were kept to secure the convergent validity (Figure 1). In the same manner, Utilitarianism had two items for measurement model before the analysis; one of the items was omitted after the analysis because of its low factor loading. According to Table IV, factor loadings exceeded the value of 0.5 suggested by Hair et al. (1998).

Examining the degree of divergence of each construct from each other is called discriminant validity analysis. For this analysis, the square root of the AVE scores for each construct was compared with their correlation with the other constructs. It is recommended that the square root of AVE scores should be greater than their correlation with the other constructs (Chin, 1998). Table V reveals the correlation matrix of constructs and the square root of AVE scores in bold. According to the obtained result, off-diagonal results (correlation of constructs) were less than or equal to the bolded diagonal (square root of

Hypothesized relationships between ethics awareness and related constructs

A1 U1 Amoral U2 A2 \$1 \$2 E1. НЗ Ethics Egoism \$3 Awareness E2 R1 R2 D1 R3 Deontology Religiosity D2 R4 R5 R6 R7

Figure 1

Table V Discriminar scores	nt validity a	nalysis: cor	relation of	construct	and squar	e root of	AVE
Constructs	A1	A2	A3	A4	A5	A6	A7
A1-Amoral	0.766						
A2-Seniority	0.020	0.793					
A3-Deontology	-0.012	0.040	0.769				
A4-Egoism	0.267	0.072	0.195	0.813			
A5-Ethics awareness	0.156	-0.094	-0.313	0.073	0.752		
A6-Religiosity	-0.048	-0.066	0.429	0.239	-0.268	0.830	
A7-Utilitarianism	-0.072	-0.024	0.565	0.183	-0.291	0.461	N/A

AVE scores) values. Therefore, there was no problem with discriminant validity, and this confirmed the validity of the proposed measurement model. It was therefore concluded that the measurement model was reliable.

#### Structural model

As shown in Figure 1, a structural model was used for assessing the hypothesized relationship of the constructs, the coefficient of determination ( $R^2$ ), the path coefficient and their corresponding significance scores. To assess the statistical significance between latent variables (constructs), traditional parametric tests were inappropriate in PLS (Chin, 1998). Therefore, bootstrapping as a non-parametric test was used to test the hypothesized relationship between constructs. To do this, as recommended by Chin (1998), bootstrapping with 500 subsamples was performed by re-sampling with replacements from the original samples to test the statistical significance of each path coefficient.

Table IV also shows the  $R^2$  values of dependent latent variable. There was only one dependent variable in this study, "Ethics awareness". According to the obtained result, "Ethics awareness" was explained by the independent constructs with 18 per cent.

Table VI shows the path coefficient results as well as their t-values, which were obtained by using the bootstrapping re-sampling technique in Smart PLS. Negative (positive) signs in Table VI represent the positive (negative) influence on ethics awareness, as the Likert scale was constructed as "1" (not morally right and "7" (morally right). The path coefficients and their associated t-values demonstrated the direction and strength of each hypothesized relationship. According to the structural model's results, utilitarianism was found to be a weak construct at the 0.10 significance level on ethics awareness. Accordingly, H1 was supported. Although weak, this result implies that considering the benefits of the majority while making ethical decisions results in behaving morally, it may not be adequate, as such behavior may harm the rights of the minority. In addition, keeping the majority's rights could necessitate breaking some rules and regulations, thus causing unethical behavior. In addition, there was a positive significant relationship between deontology and ethics awareness at the 0.05 level ( $\beta = -0.1941$ , p < 0.05). H2 was supported as well. This finding implies that accountants must adhere to commercial codes, tax laws, accounting standards and principles and ethical guidelines to resolve ethical issues. Otherwise,

Table VI Hypothesized relationsh	iip						
Relationships	Hypothesis	Coefficients	Sign	t-values			
Utilitarianism → Ethics awareness Deontology → Ethics awareness Egoism → Ethics awareness Amoral → Ethics awareness Seniority → Ethics awareness Religiosity → Ethics awareness	H1 H2 H3 H4 H5 H6	-0.128 -0.194 0.157 0.097 -0.113 -0.166	- + + -	1.687 2.293* 2.514* 1.651 2.656** 2.667**			
Notes: *significant at 0.05; **significant at 0.01							

pursuing the benefits on behalf of society, some groups, some individuals or employers at the expense of breaking the rules is likely to cause corporate scandals in the future. Furthermore, egoism had the highest influence on ethics awareness, which had the highest path coefficient. It is clear that there was a significant negative relationship between these constructs at the 0.05 level of significance ( $\beta = 0.1575$ , p < 0.05). H3 was supported. This finding clearly indicates that the more an accountant thinks of his/her personal benefits, the more he/she behaves unethically in trying to maximize these personal benefits at the expense of others, at least in some cases. In line with the expectations, the amoral construct had no significant effect on ethics awareness. Thus, H4 was supported. Proponents of this approach might think that everything is written in rules and regulations, and thus there is no reason to detect ethical dilemmas. Based on the obtained results, there was a strong positive significant relationship between seniority and ethics awareness  $(\beta = -0.1134, p < 0.01)$ . Therefore, H5 was supported. This finding is in line with prior studies which showed the existence of an association between the ethical stage and the hierarchical position or work experience of the accountants (Ponemon, 1990; Weeks et al., 1999; Eweje and Brunton, 2010). Finally, a positive significant relationship between religiosity and ethics awareness was found ( $\beta = -0.1659$ , p < 0.05). Therefore, H6 was also supported, as confirmed by prior studies (Rice, 2006; Lam and Shi, 2008; Wong, 2008).

#### Conclusion

This study investigated the ethics awareness evidenced by Turkish professional accountants from the perspective of varying theoretical approaches, seniority and religiosity. Based on the empirical data collected from 219 accountants, PLS-SEM was implemented.

In this study, six hypothesized relationships were established. Seniority, which included three measurements (i.e. S1: experience, S2: income level, S3: title) was found to have a positive association with ethics awareness. Thus, the higher the seniority level, the more pronounced ethics awareness appears to be. This might be explained in such a way that gaining experience as the years pass may mean being more familiar with the laws and regulations, which leads to making fewer mistakes and thereby refraining from breaking the law. Moreover, seniority involves earning a higher income, in which case an accountant may not be willing to commit immoral activities to make money. One of the dimensions of seniority was title. Hence, being promoted to a higher position results in less engagement in immoral acts, meaning that promotions make positive contributions to ethics awareness. These results imply that accountants who are in the early stages of their career development should be made aware of the ethical issues they face in their professional life.

Religiosity is another factor that has a positive effect on ethics awareness. In this relationship, several factors might play a role. The concept of belief in all religions prevents humankind from committing sins through immoral acts, as all religions affirm being truthful, right, just and not deceitful. These beliefs also help people act according to the law which applies to the work environment as well as on an individual level. Moreover, according to many of the religious teachings and commandments, a person who commits a sin (a good deed) will be faced with punishment (rewards) in the hereafter. This fear and hope of the hereafter becomes a deterring factor in daily life.

The results of this study are also consistent with the literature in terms of deontology. The deontological construct in the study was found to have a positive influence on ethics awareness. Thus, following moral obligations, duties, responsibilities and principles, regardless of the consequences of an action, will contribute to the moral behavior of accountants and contribute to their awareness of ethics. Without knowing the principles, rules and regulations of a profession well, it is possible that a person could behave in an immoral way, consciously or unconsciously. Thus, accountants should be taught these principles of their profession from the entry level throughout their working life.

Contrary to the above theories, egoism has a negative association with ethics awareness. This means that behaving selfishly leads to a low level of understanding ethics and ethical practices, as selfish people think only of their personal benefits, rather than following rules, laws or principles. They also spoil the work environment for their colleagues and create unequal working conditions in the market. For instance, egotistical accountants might take advantage while providing services to the customers by not considering their colleagues. Through professional associations, some initiatives may be taken to involve accountants in social responsibility programs to curb selfish behavior and improve empathy.

Furthermore, utilitarianism has a weak positive relationship with ethics awareness. According to previous studies, this theoretical approach has both supporters and opponents. Although it affirms that any act is moral if it will produce the greatest net benefits for society as a whole, it does disregard the morality of the means and underestimates the rights of the minority. Finally, the finding regarding the amoral approach is consistent with the literature, as the amoral approach does not recognize a relationship between ethics and accounting.

There are some valuable implications for policy-makers as well. Enhancing the ethics awareness of accountants should be a priority for policy-makers, as unethical behavior harms society and eventually the government, for instance by affecting the amount of tax income that becomes available. In light of the findings, all regulations should be clear rather than obscure, so that practitioners can comply easily without manipulating them. Based on the findings regarding the seniority variable, it is possible to say that policy-makers may take steps to increase the life standards of accountants by way of promotions. In other words, the impoverished conditions of some accountants might encourage them to deviate from the regulations, although this is never an excuse for unethical behavior.

Practitioners themselves are at the center of ethical issues. They should educate themselves regarding what is ethical or unethical, and should also be aware of the harsh consequences of unethical behavior, as well as the rewards of ethical behavior. Accountants who behave ethically are likely to be recognized by managers and promoted to upper-level positions more rapidly.

The study has some limitations. The ethical awarenesses of the participating accountants were evaluated according to hypothetical vignettes, rather than actual situations. Therefore, further studies might be conducted to explore the ethical awarenesses of accountants. Even though the results were consistent with the general literature, the study can be applied to a larger group of accountants for the generalizability of the results. Moreover, a questionnaire survey does not permit an investigation from a qualitative perspective (whys and hows of the answers); thus, further case studies might be conducted to make detailed investigations. Another important direction could be to examine the variations in ethical perceptions between accounting and non-accounting professionals. Finally, cross-cultural studies including several countries might be beneficial in investigating the differences between various cultures.

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# Appendix. Vignettes

Eight vignettes were provided to the respondents which they were requested to evaluate based on a Likert scale of 1 (not morally right) to 7 (morally right). These vignettes were adapted from Cohen et al. (1996).

- v1: A firm's partners have decided to scale back due to stagnation in the marketplace. An employee will be fired. The person to be terminated is a long-time employee with a history of absenteeism due to the illness of one of his family members. Instead, a younger and recently hired, but very competent employee is laid off.
- v2. A firm is about to introduce a product to the market. The sales manager, who is paid based on a commission basis, starts to sell the product before its legal test process is finalized.
- v3: A Turkish firm's manager who wants to do business abroad is requested to make a cash payment to a local distributer in a foreign country. This payment will enable his firm to operate in that foreign country. This payment is considered normal in that country, and is not considered illegal. The manager has made the requested payment.
- v4: The owner of a small business which is currently in financial distress asks his old friend if he can borrow and copy a copyrighted software package which is sold for \$500. This software will help improve his business very much. The old friend loans the software package.
- v5: The sales manager of a firm will not be able to get a bonus if he does not realize the budgeted projected sales revenues. However, there is a customer order with a shipment date that is not due yet. This notwithstanding, the sales manager achieved his quarterly sales target by shipping the customer's order before the delivery date.
- v6: A start-up company applies for a bank loan. The credit manager of the bank is a friend of the company owner applying for the loan. The company does not meet the bank's lending criteria, due to its short history. The credit manager of the bank approves the loan.
- v7: A salesman with two children regularly travels for his job due to being promoted to a new position. He wants to charge some small personal expenses to the company, as his job trips are so frequent and inconvenient for his family life. He has heard that this is regarded as common practice within the company. The salesman charges the company \$50 for a family gift that he purchased during a business trip.
- v8: The general manager of a company asks the controller to reduce the estimate for bad debts in order to increase reported income, stating that this is an ordinary practice in the industry when times are hard. The company has followed a very conservative policy for allowances for doubtful accounts in the past, even in difficult times. The controller makes the required adjustment.

#### Corresponding author

Ali Uyar can be contacted at: aliuyar@hotmail.com

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