Full Length Research Paper

Ethical behavior in accounting: Some evidence from Turkey

Yasemin Zengin Karaibrahimoğlu*, Ece Erdener and Turgut Var

Department of Business Administration, Faculty of Economics and Administrative Sciences, Izmir University of Economics, Sakarya Caddesi no: 156 Postal Code: 35110, Balcova, Izmir, Turkey.

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In today’s business environment, the role of accountants is significant. Managers and other decision-makers base their decision mainly on information that accountants provide. Since accuracy of decisions depends on the reliability of accounting information, the ethical dimension of the profession has gained considerable attention recently. Furthermore, major corporate failures such as Enron, Arthur Anderson and WorldCom have made ethical issues a paramount concern to those working in business and accounting. With this understanding, this study examined whether ethics is teachable or not based on a survey conducted among business students in two Turkish universities. Overall, research findings suggest a strong support for the inclusion of ethics in business and accounting curriculum.

Key words: Accounting, ethics education, ethical attitudes, cognitive attitudes.

INTRODUCTION

The purpose of ethics in business is to guide managers and employees and to let them abide by a code of conduct that will create and maintain public confidence/trust in their products and services (Smith and Smith, 2003). Just as individuals, professions develop their ethical values, namely a code of ethics in stages over time. From accounting perspective which is a discipline that is thoroughly ethical in nature (Francis, 1990), ethical behavior can be expressed as performing the accounting duties in accordance with Generally Accepted Accounting Principles (GAAP) such as reliability, accuracy, objectivity and so on. International Ethics Standards Board for Accountants (IESBA) is responsible for developing and issuing ethical standards and providing guidance for accounting profession (IFAC).

A code of ethics is a set of formal rules and standards based on ethical values and beliefs regarding what is right and wrong related to a certain field [1] (George and Jones, 2005). Of course, these ethical guidelines do not aim to provide instant solution for all ethical issues, but rather aim to help in the decision making process. Harmonization of IESBA standards and the code of ethics with worldwide ethical standards would be a major step towards strengthening the confidence in the accounting profession and protecting public interest. In other words, adapting all guidelines for ethical behavior into a set of uniform ethical standards throughout the world would bring consistency and ease to handling ethical issues.

Ethical considerations have gained more attention in recent years due to the fact that accounting profession has been evolving into an entity which is more than just a book keeping and reporting system (Nofsinger and Kim, 2003. p.75; Jones and Abraham, 2007). Today, accounting is not perceived simply as a systematic process of recording, classifying, summarizing and reporting transactions, but rather a complex cycle of data processing with potential manipulation of information received and to be released. Moreover, the accounting system which could be described as rule-based (requirement following) previously seems to be replaced by a principle-based (judgment making) accounting system. It seems that accountants adopting rule-based ethical perspectives have failed to protect investors and stakeholders – resulting in a wave of scandals and charges of unethical

*Corresponding author. E-mail: yasemin.zengin@ieu.edu.tr.
Tel: +90 232 488 81 91, +90 533 639 13 58. Fax: +90 232 279 26 26.
conduct (Satava et al., 2006). Also, the new standards have brought judgments, that is, the blend moral behaviors of the profession into decision making (Chand et al., 2005; Bennett et al., 2006; Stuebs and Thomas, 2009).

All of the changes mentioned above, in addition to recent scandals, have deteriorated the reputation of accounting profession and accountants and have therefore necessitated more detailed analysis and investigations of the issue of ethics in the profession. Many accounting educators, associations and professionals are looking for ways of promoting ethical behavior while performing certain duties and preparing reports that are of great public interest. Actually, most of the researchers have been trying to figure out whether behaving ethically is teachable (Bampton and Maclagann, 2005; Fisher et al., 2005; Caliyurt, 2007; Esmond – Kiger, 2004; Amernic and Craig, 2004; Baetz and Sharp, 2004; Gray et al., 1994; Leung and Cooper, 1994; Low et al., 2008; Uysal, 2002; Susmuş and Arzova, 2003; Smith and Smith, 2003; Rothenburg, 2003; Weber and Glyptis, 2000; Ponemon, 1993; Oddo, 1997; Loeb, 1988; Grusd, 2007; Dellaportas, 2006; Bernardi and Bean, 2006; Alam, 1998). The issue of whether ethical behavior is teachable has become an issue of debate among researchers. One supports the idea that ethical behavior is teachable and therefore favors integration of ethics into the accounting curriculum. The other insists on the belief that it cannot be taught (Rothenburg, 2003; Bernardi and Bean, 2006; Grusd, 2007). Although supporters of the first view agree that ethics can be included in education programmes, this does not necessarily mean those receiving this education will behave in a totally ethical way. In other words, according to this view, ethics can be taught, but ethical behavior cannot be influenced by ethics education. They argue that someone is programmed to behave either ethically or not.

The aim of this study is to examine ethics education in the accounting profession in Turkey. Since 1994 Turkey is a member of International Federation of Accountants (IFAC) which releases Code of Ethics for Professional Conduct. Furthermore, Turkey adopted International Financial Reporting Standards (IFRS) since 2002 that requires highest level of standardization and improvements in accounting profession. Thus, ethics education has become an important issue for the country. Güneş (1997), Civelek and Durukan (1997), Aysan (1998), Akay (2002), Uysal (2002), Susmuş and Arzova (2003) and Caliyurt (2007) are some of the researchers that conducted ethics studies for accounting profession in Turkey from different perspectives. In addition, this study fits into the wider literature by comparing the results of previous studies conducted in different countries. Education systems, as well as common characteristics of students due to their cultures may differ from country to country. Therefore, to give particular attention to potential differences among countries at different times could lead to insightful findings and interesting conclusions. Thereby, the results might provide basis for further studies that takes into consideration the cultural effects of countries in accounting ethics.

**Theoretical framework**

Ethics is the principles and standards of moral behavior that is accepted by society, “right” as opposed to “wrong” (Bovée et al., 2006) which is concerned with moral obligation, responsibility and social justice of all parties involved in the decision process (Morf et al., 1999). The term “business ethics” refers to the need to apply moral standards by professions. A profession is formed on the basis of a generally accepted body of knowledge, a widely recognized standard of attainment and finally an enforceable code of ethics that is a crucial element in forming a profession (Smith et al., 2005). Currently, accounting ethics can be defined as behaviors in accordance with accounting principles, such as transparency, entity concept and reliability.

Empirical studies concerning ethics have mostly focused on the study of Kohlberg’s (1969) theory of Cognitive Moral reasoning and Development (CMD). Kohlberg defines six stages of moral reasoning and indicates that a person can only pass to next level based on his/her developments in belief’s systems. The stages of Kohlberg’s theory are obedience motivated by avoidance of punishment, social gratification according to social group conventions, role expectation and approval from others, adherence to legal and moral codes, post-conventional inner conscience, just rules determined by consensus and self-chosen ethical principles (Dellaportas, 2006). Most of the empirical studies based on Kohlberg’s moral reasoning were developed by using Defining Issues Test (DIT) (Rest, 1986). DIT, conducted by Rest (1979) can be categorized as Neo-Kohlerberg and it uses a Likert scale to give quantitative rankings to the six moral dilemmas of Kohlberg’s theory.

In addition to theoretical and conceptual studies concerning ethics in accounting, ethics education, which is based on the premise that moral development can be enhanced through the education process (Huss and Patterson, 1993), has been investigated by many researchers using different methods. Accounting ethics education has been analyzed through a comparative approach using demographical, cultural, legal and social differences. It has also been analyzed through intervention approach in order to observe changes in ethical attitudes after obtaining a systematic ethics education (Dellaportas, 2006). Many of these researches have been designed in order to understand and analyze the perceptions of ethics in the accounting profession and amongst academicians, practitioners and students.

There are two opposing views on the results of intervention approach on teaching ethics in accounting. In the study of Borkowski and Urgas (1998), no relationship
was found between academic discipline and ethics. Ponemon (1993) indicated that accounting students had lower DIT scores and ethics interventions caused no significant improvement in level of ethical reasoning of accounting students. Geiger and O’Connell, (1998) found no significant differences between responses of students having completed formal ethical training and of those who had not. The same research also reported no significant differences between perceptions of male and female students. The comparisons between the academic and real accounting/business vignettes revealed that students were able to perceive unethical actions discussed as case studies in courses, however it indicated that students would be more likely to engage in unethical actions in real accounting/business vignettes compared to the academic dilemmas. One of the more interesting findings of many studies is the fact that students could easily determine whether an action or application is ethical during case studies and discussions in class. However, most of these students seem to have no hesitation in committing unethical actions during real life applications. On the other hand, many studies such as Loeb’s (1988) and Helps’ (1994) imply that teaching ethics in accounting courses increases the moral reasoning and right decision making of students and that students are affected in a positive manner by classes that include ethics education (Gautschi and Jones, 1998). Oddo (1997) indicated that many schools integrate ethical issues into business courses, while others require a separate course in ethics. However, in this case, students seem unable to incorporate what they have learnt into other business courses. Overall, research findings suggest a strong support for the inclusion of ethics in business and accounting curriculum. For instance, Alam (1998) concluded that ethics should be integrated into all accounting courses at the university level, with a small minority of respondents stressing that it is difficult to do so.

In addition there are several studies conducted to evaluate accounting ethics and ethics education in accounting in Turkey (Güneş, 1997; Civelek and Durukan, 1997; Aysan, 1998; Akay, 2002; Uysal, 2002). Susmuş and Arzova (2003) analyzed occupational ethical perceptions of business management students specializing in the science of accounting through a case study involving two universities from Turkey. In this study it was observed that while males were less inhibited and more apt to take unethical courses of action; females tended to refuse opportunities considered unethical. While previous studies focused on differences in ethical attitudes from a gender perspective, this study considers whether students could learn ethics in courses and examines whether ethical issues can be internalized by students thorough teaching. Moral development begins in the home with the family, however, the environment that the person belongs to also contributes to the formation of a person’s ethical values, which is shaped by the way ethics are presented (Weber and Glyptis, 2000). Schools later universities, where people spend a great deal of time have a considerable influence which encourages many universities to incorporate character education and moral decision-making as a part of the overall curriculum. In fact, in recent years there are many examples that point to an improvement of ethical issues.

If ethics is a teachable concept, then which factors affect ethical values and ethical attitudes? Where can ethical value be acquired and how much does each factor affect students’ ethical attitudes? In this study, it is assumed that students’ educational background and individual perception of ethical values represents the cognitive components of students’ attitudes and the ethical attitudes represent the affective components of students’ attitudes. The factors that influence the cognitive attitudes include perception, experiences, environment, family, personality and education [2].

Based on the literature, the following hypotheses were tested;

H1a: There is a significant difference between the ethical attitudes of the students who took the required accounting courses and those who only took the basic level or no accounting course.
H1b: There is a relationship between the educational background and ethical attitudes of the students.

RESEARCH METHOD

This study is based on a questionnaire survey of business students in two Turkish universities. Survey questions were derived from Fisher et al. (2005). The questionnaire was adapted to fit it to the cultural and structural differences in the Turkish education system. The survey questions were also revised to reflect the view of the business students.

The questionnaire consisted of four parts and the questions were designed so to be answered on a 5-point Likert-type scale. The first part was designed to gather demographic information. The second part was designed to evaluate the educational background of the students and included questions about the accounting courses already taken and the accounting principles and concepts learned during formal education. Also, information related to their view on teaching methods of accounting ethics was gathered at this stage. The third part examined individual perceptions on ethical concerns, that is, ethical behavior and reasoning taught by one’s family. In this part questions were directed to the students in order to determine their perception on whether they believed their ethical values originated from their family values or environmental factors. The last part, which focused on the ethical attitudes of students, consisted of ethical case-statements.

In addition to the survey conducted among students, interviews were made with instructors. The questions used in the students’ survey were directed to instructors in order to receive their opinions. At the end of the research, the responses of students and instructors were compared.

In this study, the questions directed to the students were structured in such a way as to separately evaluate the cognitive and the affective components of the students’ attitudes separately.

Sample

Business students from two universities in Turkey were surveyed
using a self-administered questionnaire, distributed to students in the classes. Today's business students will be tomorrow's professionals and managers and it is believed that understanding their perception of ethical reasoning is essential. The field of business comprises accounting, finance, management, and marketing students that will all need accounting information in their future business life. This is why business students were selected as the sample.

A pilot study is conducted with a sample of 20 students in order to figure out whether the questionnaire is understandable by respondents. The questionnaire is revised according to the feedback received.

A sample of 154 students represents the total population of 640, where the confidence interval is 95% and standard error is 0.05. In order to increase the rate of usable questionnaires, a sample of 240 was selected. The sample was divided into two equal groups. All respondents were female and 114 of the respondents were male. Thus, the response rate was 97.9 and 48.18% female and 51.82% male. 85.4% of respondents were under 23-years-old (n = 220).

With regard to the accounting course taken, 86.3% took only introduction to financial accounting course, 72.5% took at least introduction to financial accounting, managerial and cost accounting courses during their business education (n = 220). The percentage of students taking other courses was 3.6% auditing course, 8.4% financial statement analysis course, 15.7% computer-aided accounting course and 2.4% international accounting course (n = 220). None of the respondents took advanced accounting and current issues in accounting courses.

DATA ANALYSIS AND FINDINGS

Students' responses on how often “accounting ethics” were mentioned in the accounting course has a mean value of 3.06 which indicates that students were unsure, with a standard deviation of 1.426. About 36% of the students responded that it was never mentioned, while 20.5% were unsure, 42.2% claimed that it was mentioned (n = 218). Students’ responses varied on this question, probably because of the differences in educational standards and different instruction methods of teaching the course.

In order to support the question on the level of ethics mentioned in accounting courses, students were asked to rank certain concepts according to familiarity level. A comparison of the findings shows that students were more familiar with ethical and accounting concepts than with ethical theories, cases, and models. Regarding the ethical and accounting concepts [3], students were more familiar with the “Going-Concern Concept”, “Consistency”, “Entity Concept” and “Accuracy”, concepts rather than with the “Transparency”, “Relevancy” and “Reliability” concepts. The mean value of the concepts lies between 3.55 and 3.13, while the mean value of the ethical theories, cases and models take a value of between 3.06 and 2.21 (Appendix 1 and 2). One possible reason for a decline in the mean value of the theories, cases and models may be the fact that ethics is not incorporated as a separate course in the curriculum at the surveyed universities. Even if moral behavior, ethical dilemmas, a code of conduct in ethics, ethical modeling and classic ethical theories are taught as part of the standards accounting courses, a separate course on ethics may be needed in order to teach students adequately. Considering the survey results, of the instructors concluded with mean values for each of the concepts of over 4. Clearly, even if the instructors informed the students about ethical concepts, the information has not automatically become knowledge for the students. This shows that, in general, there is a mismatch of students' and instructors' responses.

Students’ responses on “Should ethics be taught as a separate course in a curriculum” were inconsistent with the current approaches and applications in accounting. According to the students, 39.0% considered that a separate ethics course was unnecessary while 24.4% were uncertain and 36.6% thought that it would be valuable (n = 220) (Table 1).

The statement “A separate ethics course would not direct them to behave ethically” was responded to as follows: 31.4% of students considered that a separate ethics course would not direct them to behave ethically, while 45.7% thought that it might be valuable and the remaining 22.9% were uncertain (n = 218). 44.6% stated in their responses that an ethics course alone would not be sufficient to provide a positive contribution to their ethical attitudes whereas 18.1% were undecided and 37.4% thought that an ethics course would have a beneficial effect on ethical attitudes (n = 218).

Students’ perception of ethics courses showed a number of contradictions. While some students believe them to be valuable, others claim that they had no effect. The lack of need for a separate ethics course expressed by many students leads to the question of whether and to what extent students consider themselves ethical.

The responses gathered in this part of the survey would also reveal insights about how they perceived accounting profession in terms of moral reasoning?

Table 2 clearly reveals that 23.19% of the students (76.81% cumulative total of strongly disagree, disagree and not sure) thought that ethics cannot be taught. In addition, 80.27% (19.72% cumulative total of strongly disagree, disagree and not sure) considered themselves ethical, while 44% (96 out of 218) of them thought accounting profession has limited relevance to moral reasoning (Table 3). Considering accounting being a science where individuals set the codes and standards, it is important to understand why such a big percentage of business students did not relate moral reasoning to accounting profession.

Survey results showed that students believed case-studies to result in better learning outcomes in the context of ethics education a separate ethics course. Furthermore, 58% thought that ethics education should start at the first year of undergraduate level.

It is assumed that ordinary business students must adequately complete at least these three required accounting
Table 1. Summary of the results to the statements on ethics.

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Mean</th>
<th>Std. deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Should ethics be taught as a separate course in curriculum</td>
<td>220</td>
<td>2.91</td>
<td>1.269</td>
</tr>
<tr>
<td>A separate ethics course would not direct the students to behave ethically</td>
<td>218</td>
<td>3.05</td>
<td>1.315</td>
</tr>
<tr>
<td>Ethics course alone is not sufficient to provide positive contribution on their ethical attitudes.</td>
<td>218</td>
<td>2.80</td>
<td>1.412</td>
</tr>
<tr>
<td>Ethics should be taught as case studies and debates in the accounting course</td>
<td>217</td>
<td>4.23</td>
<td>0.967</td>
</tr>
<tr>
<td>Ethics should be taught as classroom lecture by the instructor</td>
<td>215</td>
<td>2.04</td>
<td>1.141</td>
</tr>
<tr>
<td>Ethics cannot be taught</td>
<td>220</td>
<td>2.33</td>
<td>1.267</td>
</tr>
</tbody>
</table>

Table 2. Students’ perception on moral reasoning.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Not sure</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethics cannot be taught</td>
<td>78</td>
<td>54</td>
<td>37</td>
<td>40</td>
<td>8</td>
<td>220</td>
</tr>
<tr>
<td>Cumulative (%)</td>
<td>35.45</td>
<td>60</td>
<td>76.81</td>
<td>95</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Ethical considerations affect my decision making</td>
<td>6</td>
<td>5</td>
<td>32</td>
<td>112</td>
<td>63</td>
<td>218</td>
</tr>
<tr>
<td>Cumulative (%)</td>
<td>2.75</td>
<td>5.04</td>
<td>19.72</td>
<td>71.10</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Students’ perception on accounting profession’s moral reasoning.

<table>
<thead>
<tr>
<th>Question</th>
<th>No</th>
<th>Not sure</th>
<th>Yes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>In your opinion, is moral reasoning important to the accounting profession?</td>
<td>96</td>
<td>75</td>
<td>47</td>
<td>218</td>
</tr>
</tbody>
</table>

Table 4. Independent Samples Test- equal variances assumed.

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>Std. deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students taking equal or more than 3 accounting courses</td>
<td>144</td>
<td>26.44</td>
<td>5.35</td>
</tr>
<tr>
<td>Students taking less than 3 accounting courses</td>
<td>74</td>
<td>24.38</td>
<td>5.19</td>
</tr>
</tbody>
</table>

Independent sample statistics for students (control variable: accounting courses)

<table>
<thead>
<tr>
<th></th>
<th>t</th>
<th>Sig.(2-tailed)</th>
<th>95% Confidence interval of the difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethical attitudes</td>
<td>1.659</td>
<td>0.101</td>
<td>Lower: -0.412 Upper: 4.544</td>
</tr>
</tbody>
</table>

accounting courses during their business education; financial accounting, cost accounting and managerial accounting. Ethics is emphasized in these courses. Prior research suggests that if ethical attitudes are in fact acquired through education, a significant difference would be expected between the mean of the ethical attitudes of those students who took three or more accounting courses and those who took less than three.

H1a: There is a significant difference between the ethical attitudes of the students who took the required accounting courses and those who only took the basic level or no accounting course.

In order to measure ethical attitudes (EA) students were asked to rate seven evaluative ethical statements using a five point Likert-scale. For each student the mean value of EA index is computed by summing up the rates of each ethical statement. The cutoff point of the sample is three with a selection variable as accounting courses; for 144 students taking equal or more than three accounting courses the mean of the attitudes ($\mu_1$) is equal to 26.44 with a standard deviation of 5.35. And for 74 students taking less than three accounting courses the mean of the attitudes ($\mu_2$) is equal to 24.38 with a standard deviation of 5.19 (Table 4).

The significance value of the Levene statistic is greater than 0.10, so it is assumed that the groups have equal variances. The t statistic is insignificant at 5% level, so the null hypothesis cannot be rejected and it is concluded that the results do not indicate a significant difference in ethical attitudes between the students who took the required accounting courses and those who only took the basic level or no accounting course. Findings of the pre-
sent study confirms Geiger and O’Connell, (1998) that found no significant differences between responses of students having completed formal ethical training and of those who had not.

In order to support the findings the second hypothesis was tested. The respondents were rated in each of the two parts, educational background (EBA) and ethical attitudes (EA) separately.

H1b: There is a relationship between the educational background and ethical attitudes of the students.

EBA is a single measure computed by summing up the rates given to the questions about familiarity to accounting ethics and basic principles and concepts of accounting. A five point Likert-scale is used for each question.

Accounting courses (AC) is measured by using the nominal scale indicating how many courses that they have taken. AC that they had already taken were added as a dummy variable into the model as selection variable. The response model is; (Table 5).

\[ EA_i = \beta_{0i} + \beta_{1i} EBA_i + \beta_{2i} D*AC_i + e_i \quad (i = 1, 2, 3, ..., n) \]  

(1)

The regression model states that there is no significant relationship between the educational background (EBA) and ethical attitudes (EA) of the students.

One of the reasons of insignificant relation between ethics education and ethical attitudes might be the dilemma that students face in ethical situations. Students don't attempt to behave ethically because of their personal interest; even they have been enrolled to ethics courses. Low (2008) point out that, while students perceive ethics education as important, they thought that ethics education has a moderate influence on their behaviors. So, teaching ethics do not mean that someone will behave in an ethical way. Secondly, some students find teaching ethics as irrelevant, because they believe that ethical values are developed earlier in life (Baetz and Sharp, 2004) and highly affected by family, environments and culture. It is also indicated by students that families are responsible for ethics education and teaching ethics in universities is inefficient and waste of time, because it will not turn out a success (Bampton, 2005).

**DISCUSSION AND CONCLUSION**

Ethical guidelines, as determined previously, do not provide a recipe for every ethical dilemma. In other words, there is no exact solution for every single ethical problem. However, ethics education, in the form of raising various ethical situations in class and coming up with alternative solutions through discussion, would help student become aware of ethical problems that they may face in professional life. It can be clearly seen that 40% of business students think that accounting ethics cannot be taught in class. This may be related to their lack of awareness of the ethical problems that they will be facing in professional business life. However, a high percentage (60%) of students opposes this point of view, showing support for the idea that they would be able to learn ethics in class.

In the hypothesis (H1a), the differences in the mean values of attitudes are statistically insignificant to prove the impact of the courses taken during the education on ethical attitudes. The findings support hypothesis (H1b), since the results show an insignificant relation between educational background (EBA) and ethical attitudes (EA). Education was shown not to influence ethical attitudes.

Previous studies on ethics in accounting education shows mix results. Unlike the findings of present study, Weber and Glyptis (2000) found that business ethics course leads an increase in business student’s concern for social issues. Dellaportas (2006) indicated that an accounting ethics course can have a positive and significant effect on DIT scores of the students. However, there are studies, found similar to our findings (Low, 2008; Baetz and Sharp, 2004; Bampton, 2005). The findings of this study expand the discussion in literature on ethics education in accounting by confirming the results of previous studies.

The problem which occurs in students’ attitudes is the inconsistencies among cognitive, affective and behavioral components. There is a trade-off between ethical practices and individual or corporate benefits, causing a cost-benefit dilemma which students fail to overcome. The inconsistency of ethics education in accountancy and its inability to produce responsible accounting graduates may be a reason for students’ inconsistent attitudes. It is believed that merely changing the curriculum, including a separate ethics course into the academic/ training pro-

### Table 5. Regression- Dependent variable: Ethical attitudes (EA).

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>Std. error</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>26.33</td>
<td>2.33</td>
<td>11.27</td>
</tr>
<tr>
<td>EBA</td>
<td>0.004</td>
<td>0.060</td>
<td>0.063</td>
</tr>
<tr>
<td>D*AC</td>
<td>0.019</td>
<td>0.015</td>
<td>1.13</td>
</tr>
</tbody>
</table>

**The coefficient of the independent variable “accounting concepts” is statistically insignificant at 0.10 significance level. [Predictors: (Constant), Educational background (EBA); Dependent Variable: Ethical attitudes (EA)].
grams, or improving the instructors’ attention to this topic will not be sufficient to transform the affective attitudes of the students to ethically correct ones. In support of our opinions, Bay and Greenberg (2001) suggest that ethics education should instill not only the knowledge of what is ethical but also the strength and conviction of character required to actually behave ethically.

The findings indicate that, ethics is an important requirement in profession. However, ethics education is not turning out a success. Therefore, considering the findings of all academic studies, regulators and faculty need to improve educational models and techniques in order to be effective in ethics education by considering the effects of other factors (family, culture, social environment etc.) in ethic education.

One of the major limitations of the present study is that the sample is drawn from only two universities. Future research may be carried out with a greater range of institutions and more diverse samples to verify the present findings. Secondly, ethics education is used as the unique variable that affects ethical attitudes, but a further study needs to be conducted in order to measure the influence of family and social environment. So other variables need to be incorporated into the model. Third, the effects of culture might be measured by using a cross sectional data from different countries.

Notes
1. Ethical values are one’s personal convictions about what is right and wrong.
2. Attitudes are evaluative statements, either favorable or unfavorable, concerning objects, people, or events. An attitude is made up of three components: cognition, affect and behavior. The cognitive component refers to the beliefs, opinions, knowledge, or information held, the affective component is the emotional or feeling part of an attitude and the behavioral component refers to an intention to behave in a certain way toward someone or something (Robbins and Coulter, 2007, p.390).

REFERENCES


IFAC (available at: http://www.ifac.org/ethics/), accessed on 20 June 2009)

Appendix

Appendix 1. Ethical and Accounting Concepts mentioned in the accounting courses.

<table>
<thead>
<tr>
<th>Concept</th>
<th>N</th>
<th>Rank</th>
<th>Mean</th>
<th>Std. Dev. (σ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Going-concern concept</td>
<td>218</td>
<td>*1</td>
<td>3.55</td>
<td>1.288</td>
</tr>
<tr>
<td>Consistency</td>
<td>220</td>
<td>*2</td>
<td>3.46</td>
<td>1.3</td>
</tr>
<tr>
<td>Entity concept</td>
<td>218</td>
<td>*3</td>
<td>3.38</td>
<td>1.254</td>
</tr>
<tr>
<td>Accuracy</td>
<td>220</td>
<td>*4</td>
<td>3.37</td>
<td>1.323</td>
</tr>
<tr>
<td>Transparency</td>
<td>220</td>
<td>*5</td>
<td>3.25</td>
<td>1.267</td>
</tr>
<tr>
<td>Relevancy</td>
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*Max. = 5, Min. = 1.

Appendix 2. Ethical Theories, Cases and Models mentioned in the accounting courses.

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*Max. = 5, Min. = 1.