Teaching, communicating and evaluating CSR

Can we teach ethics and professional deontology? An empirical study regarding the Accounting and Finance degree

Francisco Alegria Carreira, Maria do Amparo Guedes and Maria da Conceição Aleixo

Francisco Alegria Carreira is Professor Coordenador, Maria do Amparo Guedes is Professor Adjunta and Maria da Conceição Aleixo is Assistente, all at the Ecola Superior Ciências Empresariais do Ipsetúbal, Setúbal, Portugal.

Abstract

Purpose – This paper sets out to analyse the role of ethics and moral values in higher education, as well as the articulation with two important professions in the financial area, because ethics and professional deontology play an important role in organizations and society, which have a great concern with corporate social responsibility.

Design/methodology/approach – The literature review allows one to build a questionnaire used to evaluate the ethical behaviour and rules of ethics in a sample of higher education students of the third year of an Accounting and Finance course in the Business Administration College of the Setúbal Polytechnic Institute. The same questionnaire was applied to those students wishing to become chartered accounts and statutory auditors. Finally an exploratory analysis was carried out that summarises the questionnaire, categorising in several clusters as result of cluster analysis, according to the variables that had higher scores.

Findings – The concept of ethics is not a consensual one among the different investigators: for some it means a set of rules, principles and values that may be mistaken for morality from a broader point of view. Some authors consider ethics as a judging reflection upon morality. Concerning the cognitive dimension of attitude towards ethics, the subject of ethics and professional deontology strengthened the answers to the questions with lower scores. Concerning the affective/assessing attitude of ethics, the subject of ethics and professional deontology strengthened the students' convictions about the importance of the existence of a deontological code, of ethical principles and of accounting information, as well as the question with the lowest score (the entity's interest is more important).

Practical implications – The results of this research confirm the initial hypothesis that higher education students of the third year of an Accounting and Finance course in the Business Administration College of the Setúbal Polytechnic Institute do not know the limitations of ethical behaviour.

Originality/value – This paper provides valuable empirical evidence in the role of ethics and moral values in higher education, because teaching ethics and professional deontology is an essential need of society and is inherent to teaching activity that must be promoted by policy makers.

Keywords Ethics, Higher education, Accounting, Portugal

Paper type Research paper

1. Introduction

Life in society demands sociability, so that standardised behaviours based on moral and ethical rules are crucial to minimize possible conflicts. Morals and ethics show up as synonyms: a set of principles or behavioural patterns. This notion is shared by several philosophers and has to do with the fact that both words have the same etymological basis (''*ethos*'' from the Greek and ''*mores*'' from Latin). Morals have been associated with a set of

ruling and dogmatic principles based on the distinction between good and bad, whereas ethics is assumed as a behavioural science.

Argandoña (1997, p. 64) sees ethics as:

> . . . the science that studies Man's behaviour in order to help him reach his goals. It is a science, not a belief or the result of a political consensus; it is a knowledge that can be learnt by means of reasoning or experimenting. It is a practical science: we don't study it to have knowledge but to be able to act. It is a normative science: it doesn't tell us how most of the people act – that is up to sociology –, but how we all should act.

When formalised, normative ethics is translated in deontological and behavioural codes that have as a their main goal to draw basic concepts of law and duty set by a group for the performance of their profession. According to Mercier (2003, p. 63), the ''deontological dimension assumes beforehand a reflection on the rules and translates the will to make the members join those rules and the organisation norms''. The relationship with behavioural practice that one expects to be observed when performing any profession, aiming at the wellbeing of society and assuring the correct procedure of its members within and without the profession, is essential for stockholders' confidence. The social and ethical responsibility of enterprises has to do with the internalization of these rules by the managers, chartered accountants or TOCs responsible for the accounting information, and by the auditor accountants or ROCs who provide credibility to that information.

It is then crucial to keep thinking, reflecting and building. The Business Administration College of the Setúbal Polytechnic Institute, in its Accounting and Finance degree – which aims to create technicians in the areas of accounting, auditing, taxing, finance and enterprise management – is conscious that the ethical education of the youngest generations has to do with a transversal perspective of the students' education, dealing with the several different influences of society so that they can be free and autonomous to think and judge. In that perspective, the authors thought it interesting to assess the students' attitudes before and after attending the subject of ethics and professional deontology that is taught in the Accounting and Finance degree as an optional subject.

2. Ethics, morals and education

Moral and ethical values are related to the values of good and bad of justice. The values are defined by a two opposed pole scale and can be faced as subjective criteria present in the individual or as an attribute of objects, beings and situations. Ethics is linked to general principles of good and bad, whereas morals are linked to patterns of duty and concrete practice. Morals are a system of norms, principles and values, according to which the mutual relationships among individuals or between individuals and the community are regulated. These norms have a historic and social character accepted freely and conscientiously by a subjective conviction. Many authors define ethics as a judging study of morality, as it is a reflection on our moral behaviour. However, other authors have a different approach when distinguishing ethics and morals, such as in the way expressed in Table I.

According to Lisboa (1997, p. 26):

> . . . the central problem for ethics has been the double work of analysing the meaning and nature of the moral normative element in the human behaviour, in thought and in language as well as assessing the meaning and nature of the human behaviour, showing the criteria to justify the rules and the judgements of what is morally correct or wrong, good or bad.

Table I	Approaches to distringuishing ethics and morals
Ethics	*Moral*
Set of principles	Specific behaviour aspects
Permanent	In time
Universal	Cultural
Rule	Rule of conduct
Theory	Practice

Ethics can be understood from the point of view of different dimensions. This idea comes from Mercier (2003), who distinguishes three different dimensions as shown in Table II.

Reflecting upon rules is what is called ''deontology'', which comes from the conjugation of the Greek words ''*déon*, *déontos*'', which mean duty, and ''*lógos*'', that means speech or treaty. Under this perspective, deontology would be the treaty of the duty or the set of duties, principles and norms adopted by a specific professional group. It is a normative subject that deals with the duties that must be followed in specific social circumstances within a specific profession. Deontology is therefore the science that sets the guiding norms of professional activities under the sign of morality and honesty. Professional deontology systematically elaborates the ideals and the norms that should guide professional activity.

Deontological codes are based on the great universal declarations that translate this ethical feeling and that adapt to the peculiarities of each country and each professional group. Also, these codes propose sanctions, according to explicit principles and procedures, to transgressors. According to Lisboa (1997, p. 58) the deontological code ''may be understood as a relationship of behavioural practices that are expected in the performance of a profession. The code norms aim at the society's well being, in order to assure the honesty of procedure from its members within and without the institution''. Under this perspective it is important that schools take an active part in the divulgation and sensitization of ethical rules since students who attend university, and who may have a moral and ethical maturity, may not know the deontological codes that rule the different professions. Therefore it is essential to provide them with a subject that explains the impact of their future profession upon society and that makes them conscious of the norms of the ethical conduct that must always be present in their work and that make them familiar with the deontological codes that rule their profession.

In many European and North American universities the teaching of ethics is part of the curriculum. Portugal follows that tendency and offers the study of ethics as a compulsory or optional subject in some degrees and postgraduate courses. This is the case of the Business Administration College of the Setúbal Polytechnic Institute, which provides the optional subject of Ethics and Professional Deontology in the Accounting and Finance degree, which aims at presenting and framing the concepts of ethics and deontology in the professions of Tecnico oficial de contas (TOC) and Revisores oficials de contas (ROC) and analysing the role of these professionals in the enterprise and in society. These professionals have the responsibility to spread the economical and financial data of organisations subject to social responsibility rules built upon behavioural codes, namely the Deontological Code of Chartered Accounts (CDTOC), the Code of Ethics and Professional Deontology of Auditor Accounts (CEDPROC) in the Portuguese context. As the school is a space of relationships where the students can discuss the ethical values, it becomes fundamental to reflect upon or to make them conscious of a set of behavioural rules aiming at defining intra-professional procedures.

3. The importance of ethics within the profession

This research deals with the subject of ethics and professional deontology in the Accounting and Finance degree, which aims to train technicians in the financial field. Thus the authors have essentially approached the professions of TOC and ROC, as they are the only professions that are organized within a Chamber and an Order of professionals and that have elaborated codes that represent the existing consensus at a specific moment of the behavioural norms that each member must follow.

Table II Three different dimensions of ethics	
Axiological ethics	Reflection upon values
Deontological ethics	Reflection upon rules
Theological ethics	Reflection upon the values of sacred, transcendental, divine and profane

The public nature of the TOC and ROC professions implies responsibilities from a social perspective, once that it is identified with the collective wellbeing of the community, the people and the institutions for which they work. The social responsibility of these technicians is based on the social responsibility of the enterprise, which has the duty to inform with quality all those related to it. As accounting is above all an information system without which it would not be possible to produce information of a trustworthy economical/financial character, and which enables its users to use it for decision-making, it becomes imperative that enterprises become conscious of the issue of social responsibility, which has been progressively introduced into the rules and conceptual structures of accounting and into the rules that should be followed by the professionals that work within it.

The professions related to accounting and auditing (TOC and ROC), legally recognised under the Statutes that created them, have produced behavioural codes aiming at encouraging mutual respect, justice, dialogue and solidarity. The Industry Rates Code of 1963 created the Technician of Accounts. For the first time accounting was recognised as a privileged information system both for management and for taxing. The responsibilities of Technicians of Accounts had to do with the accounting organisation and execution as well as the filling in of tax forms. The Technician of Accounts as such has disappeared with the taxing reform of the 1980s when the first Code of the Collective Income Tax (IRC) was published, which did not need a Technician of Accounts, only a person responsible for the accounting. Only in 1995 with Act no. 265/95, October 17, was the Chartered Accountants Association created, which regularized the profession of chartered accountants. In 1999, with the Act no. 452/99, November 5, the statutes were changed and became the Chamber of Chartered Accountants. In 2000, the Deontological Code of Chartered Accountants was created (CDTOC), which came into force on 1 January of the same year and which sets in place the third article – the general deontological principles that the TOC should follow in his profession, which are based on several articles of the Code and of the Statutes as presented in Table III.

Since 1969, the ROC has been responsible for checking on the accounting of limited companies. The profession of Auditor of Accounts was regularized only in 1972 under Act No. 1/72, January 3, although it was only in 1979 that the profession effectively began under Act No. 519-L2/79, December 29. In 1993, after the publication of Act No. 422-A/93, December 30, the new legal statute that regularizes the profession of Auditor of Accounts was promulgated. Later, in 1999, after the publication of Act No. 487/99, November 16, a new Statute of the Auditor of Accounts was instituted. The Ethical Code and Professional Deontology of the Auditor of Accounts (CEDPROC) was published on December 26, 2001 and established the principles that the ROC must follow in their profession, in the second article. These principles are defined in specific articles according to Table IV.

Of all the principles referenced in CDTOC, only the principle of equity is not defined in CEDPROC, although it is implicit in other articles. Concerning the principle of loyalty, although it is not defined in the second article, it is referred to in article 10, which is about the duties of the ROC towards his colleagues (Table V).

Many of these principles are common to any ethical code and can be downsized to, among others, the following:

Table III	General deontological principles that TOCs should follow	
General deontological principles		*References*
Integrity	Art. 3.° CDTOC	–
Honesty	Art. 3.° CDTOC	N° 2 Art. 52.° ETOC
Independency	Art. 3.° CDTOC	Art. 4.° CDTOC
Responsibility	Art. 3.° CDTOC	Art. 5.° CDTOC
Competence	Art. 3.° CDTOC	Art. 6.° CDTOC
Confidentiality	Art. 3.° CDTOC	Art. 10.° CDTOC
Equity	Art. 3.° CDTOC	–
Loyalty	Art. 3.° CDTOC	Art. 17.° CDTOC

Table IV	Fundamental principles of CEDPROC	
Fundamental principles		*References*
Independency		Art. 3.° CEDPROC
Responsibility		Art. 4.° CEDPROC
Competence		Art. 5.° CEDPROC
Urbanity		Art. 6.° CEDPROC
Legality		Art. 7.° CEDPROC
Professional secrecy		Art. 8.° CEDPROC

Table V	Duties of TOCs an ROCs	
TOC		*ROC*
Integrity		Urbanity
Honesty		Legality
Independency		Independency
Responsibility		Responsibility
Competence		Competence
Confidentiality		Professional secrecy
Equity		–
Loyalty		–

- be faithful to the institution and the boss who oversees the work;
- respect colleagues and avoid dishonest competition;
- have up-to-date and developed knowledge as well as technical skills;
- keep professional secrecy; and
- do not use privileged information to manipulate or blackmail others.

4. Empirical research

The authors aimed to assess, firstly, how the conscientiousness of ethics remains unchanged and how much it changes in relation to the teaching of a subject such as ethics and professional deontology to students of a double-phase degree in Accounting and Finance (corresponding to the period between October 2005 and January 2006, three hours a week, for a total of 45 hours), in the Business Administration College (ESCE) of the Setúbal Institute Polytechnic (IPS). Thus, the authors built a questionnaire divided into three sections:

1. characterisation of the sample collaborator;

2. cognitive dimension towards ethics; and

3. affective/assessing dimension of attitude.

In the first section – characterization of the sample collaborator – the authors identified age, sex, qualifications and professional experience, as well as the duration of that experience. The second section – cognitive dimension towards ethics – translated the student's sensitivity towards issues like ethics and is measured in terms of agreeing/disagreeing, want/don't want, like/don't like. This section is comosed of 21 questions assessed on a scale from 1 to 7, where 1 corresponds to ''I totally disagree'' and 7 to ''I totally agree''. The third section – affective/assessing dimension of attitude – measures the students' receptivity about ethics, in 15 questions assessed on a scale between 1 and 7, where 1 corresponds to ''not at all important'' and 7 to ''very important''.

4.1 Sample characterisation

The sample is composed of the students of the double-phased degree in Accounting and Finance, corresponding to the school year 2005/2006, first semester, which lasted a total of 45 hours. In total there were 104 students, of which 71 were analysed (68 percent of the

sample), who answered the same questionnaire twice: the first time before attending the subject of ethics and professional deontology (October 2005) and the second time after the terminus of that subject (at the end of January 2006). There was a direct correspondence between both questionnaires, as only in this way could they could be compared. The sample characterisation consisted of the analysis of age, sex, qualifications, professional experience and the duration of that experience.

The average age of the sample was 22: the youngest student was 19 and the oldest was 48, which corresponds to a variation of 23. Most students of the sample of the degree in Accounting and Finance in the ESCE of the IPS are between 19 and 25 years old (90 per cent), while 10 per cent are aged between 27 and 48. Most of the students are female, about 66 percent against 34 percent male. The students hold no superior education and the majority (about 70 percent) have never had any professional experience. The rest (about 39 percent) have a professional activity divided over several different areas and their experience varies between one and 33 years in duration. Professional experience is essentially in the finance area (accounting, filing or administrative), corresponding to 17 percent, other activities correspond to 9 percent (namely sales, logistics, hotels, telephone operator and cashier) and activities without a defined area to about 4 percent.

4.2 Cognitive dimension towards an ethical attitude

4.2.1 General characterization. Scores for questions about the cognitive dimension towards ethics *before* attending the subject of ethics and professional deontology the authors came to the conclusions presented in Tables VI and VII. Scores for questions regarding the cognitive dimension of the attitude towards ethics *after* attending the subject of ethics and professional deontology are presented in Tables VIII and IX. It should be highlighted that the answers with a higher score and those with a lower score registered smaller and larger variations, respectively.

4.2.2 Cluster analysis. The authors have analysed the process of the students' positioning towards the questions asked by researching groups with equal attitudes and afterwards the authors tried to identify the reason for this before and after attending the subject of Ethics and Professional Deontology. Thus, the authors used the Statistical Package for the Social Sciences (SPSS) in order to build clusters, that is, to create homogeneous groups of students according to their similar attitudes in such a way that students ''belonging to the

Table VI	Cognitive dimension towards ethics before attending the subject of ethics and professional deontology: four answers with highest scores	
Questions		*Score*
1. An ethical attitude from the TOC/ROC allows a higher degree of transparency in business		6.4
10. A deontological code must be based upon strong ethical principles		6.16
12. A deontological code defines the ethical norms of a specific profession		5.44
2. Ethics must be normative		5.23
Note: Scores greater than 5 on a scale of 1 to 7		

Table VII	Cognitive dimension towards ethics before attending the subject of ethics and professional deontology: four answers with lowest scores	
Questions		*Score*
17. Professional secrecy is incompatible with an accusation of public crime		3.12
18. The existence of a deontological code limits professional action		3.26
13. If a specific knowledge diminishes the accounting result but not the taxing result, its recognition is dispensable		3.36
15. The existence of a deontological code eliminates the ethical dilemma		3.42
Note: Scores less than 4 on a scale of 1 to 7		

www.manaraa.com

Table VIII	Cognitive dimension towards ethics after attending the subject of ethics and professional deontology: four answers with the highest scores

Questions	Score
1. An ethical attitude from the TOC/ROC allows a higher degree of transparency in business	6.09
10. A deontological code must be based upon strong ethical principles	5.81
12. A deontological code defines the ethical norms of a specific profession	5.21
2. Ethics must be normative	5.09

Note: Scores greater than 5 on a scale of 1 to 7

Table IX	Cognitive dimension towards ethics after attending the subject of ethics and professional deontology: four answers with lowest scores

Questions	Score
18. The existence of a deontological code limits professional action	3.35
13. If a specific knowledge diminishes the accounting result but not the taxing one, its recognition is dispensable	3.38
14. The TOC/ROC depends on the enterprise's perspective towards ethics	3.51
17. Professional secrecy is incompatible with accusation of public crime	3.63

Note: Scores less than 4 on a scale of 1 to 7

same group are as similar as possible and always more similar to elements of the same group than to the elements of the other groups'' (Reis, 1997, p. 290). In order to do this the authors went through the following four steps:
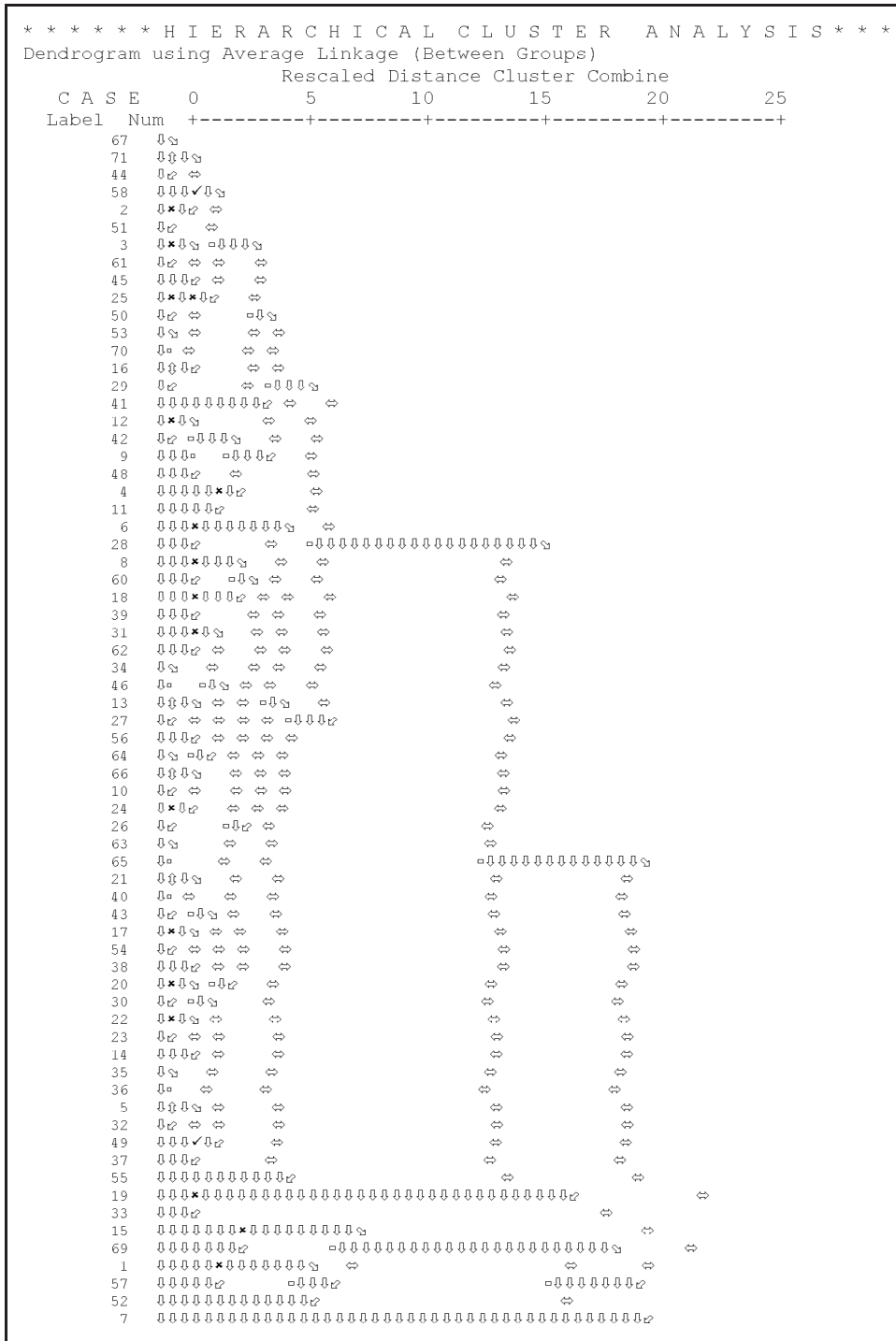
1. *Variable selection* – the four variables (questions) with a higher score were considered and they correspond to questions 1, 2, 10 and 12 (see Table V).

2. *Definition of a similar measure* – this is the process used to measure the distance between the values of the variables that constitute the groups, and the square Euclidean distance was chosen. At the same time the answers were standardized, which means that the scale of the answers is uniform and that every variable has the same score in determining the groups or clusters.

3. *Aggregation criterion choice* – the authors sought to assess how the groups kept stable or reliable, since ''there is no such thing as the best criterion of (dis)aggregation in the analysed cases of clusters. It is common practice to use several different criteria and to compare the results. If they are similar it is possible that we have obtained results with a high stability degree and which are therefore reliable'' (Reis, 1997, p. 310). As a method the authors adopted the average linkage between groups, seeking to clearly separate the distances among all the pairs of answers among the groups.

4. *Results validation* – the results obtained were treated (see below) with the other alternative processes, which did not clearly highlight the groups.

Thus, based on steps 1 (variable selection), 2 (similarities measure) and 3 (aggregation criterion), the authors identified that there were, *before* the course, three distinct groups according to the dendogram represented in Figure 1, and which are gathered thus:

- Cluster 1, composed of six students;

- Cluster 2, Group A, composed of 22 students; and

- Cluster 2, Group B, composed of 43 students.

Cluster 1 is characterised by showing a high score in question 1 (An ethical attitude from the TOC/ROC allows a higher degree of transparency in business), with 6.67 points – and in the other questions there were values inferior to the other groups under analysis with a score of

Figure 1 Clusters *before* attending the Ethics and Professional Deontology subject

```
* * * * * * H I E R A R C H I C A L   C L U S T E R    A N A L Y S I S * * *
Dendrogram using Average Linkage (Between Groups)
                          Rescaled Distance Cluster Combine
   C A S E     0        5        10        15        20        25
  Label  Num  +---------+---------+---------+---------+---------+
         67
         71
         44
         58
          2
         51
          3
         61
         45
         25
         50
         53
         70
         16
         29
         41
         12
         42
          9
         48
          4
         11
          6
         28
          8
         60
         18
         39
         31
         62
         34
         46
         13
         27
         56
         64
         66
         10
         24
         26
         63
         65
         21
         40
         43
         17
         54
         38
         20
         30
         22
         23
         14
         35
         36
          5
         32
         49
         37
         55
         19
         33
         15
         69
          1
         57
         52
          7
```

2.50 points in question 12 (A deontological code defines the ethical norms of a specific profession).

Group A from Cluster 2 shows a score that is always inferior to Group B from the same cluster in the four questions under analysis (questions 1, 2, 10 and 12). Still, Group A gave more meaning to questions 1 and 10 (An ethical attitude from the TOC/ROC allows a higher degree of transparency in business, and A deontological code must be based on strong

ethical principles) with a score of 5.59 in both questions. Question 12 also has a score of 5,09 points and the question with the lowest score was question 2 (ethics must be normative), with 4.64 points. On the other hand, Group B from Cluster 2 gives particular relevance to question 1 (An ethical attitude from the TOC/ROC allows a higher degree of transparency in business; 6.60 points), and to question 10 (A deontological code must be based upon strong ethical principles; 6.48 points), while the other scores for questions 12 and 2 were 6.03 and 5.70 points, respectively.

After the course, four distinct groups were noted, according to the dendogram shown in Figure 2, which are gathered as follows:

- Cluster 1, composed of only one student;
- Cluster 2, Group A, composed of five students;
- Cluster 2, Group B, Subgroup B1, composed of two students; and
- Cluster 2, Group B, Subgroup B2, composed of 63 students.

Cluster 1 is characterised by having the maximum score in question 2, a high score in question 1 with 6.00, and a reduced score in question 12 (A deontological code defines the ethical norms of a specific profession; with 2.00 points), which makes this an insignificant group due to its size.

Cluster 2 includes the other 70 students that are gathered in two distinct groups: Group A shows a higher score, about 5.80 in question 10, and low scores in the other questions when compared to Group B. Thus, it is important to highlight the scores of question 12 (i.e. 2.80) and question 2 (3.20). On the other hand, Group B shows higher scores in the answers to questions 1, 2 and 12 (A deontological code defines the ethical norms of a specific profession), with 6.58, 6.03 and 5.83, respectively. We can clearly identify two subgroups in Cluster B, which keep the distinct characteristic of Group A but with close patterns to the scores of the answers given to questions 1, 2 and 12 and more distinct in question 10, i.e.:

- Subgroup B1: scores for questions 1, 2, 10 and 12 were 6.50, 6.35 and 5.50 respectively; and
- Subgroup B2: scores for questions 1, 2, 10 and 12 were 6,67, 6,06, 6,61 and 6,17 respectively.

4.3 Affective/assessing dimension of attitude

After analysing the questions about the affective/assessing dimension of attitude towards ethics before attending the subject of Ethics and Professional Deontology, we now discuss our conclusions. The four answers with the highest score (greater than 5 on a scale of 1 to 7) are presented in Table X. The answer with the lowest score (less than 4 on a scale from 1 to 7) was to question 3 (the entity's interest is more important), with 3.83. On the other hand the questions about the affective/assessing dimension towards the ethical attitude after attending the same subject allowed us to draw the following conclusions. The four answers with the highest scores (greater than 5 on a scale of 1 to 7) are presented in Table XI. The answer with the lowest score (less than 4 on a scale of 1 to 7) was question 3 (the entity's interest is more important, with 4.50). It is important to highlight that the answers to the questions with higher scores and with lower scores registered a smaller and a bigger variation respectively.

4.3.2 Cluster analysis. In order to perform the cluster analysis, the authors developed the following four steps:

1. Variable selection – The four variables (questions) with the highest scores (1, 7, 8 and 14) were considered (The existence of a deontological code, Accusation of a public crime and Accounting information) respectively, in each moment.

2. Definition of a similarity measure.

3. Aggregation criterion choice.

4. Results validation (see section 4.2.2).

Figure 2 Clusters *after* attending the Ethics and Professional Deontology subject
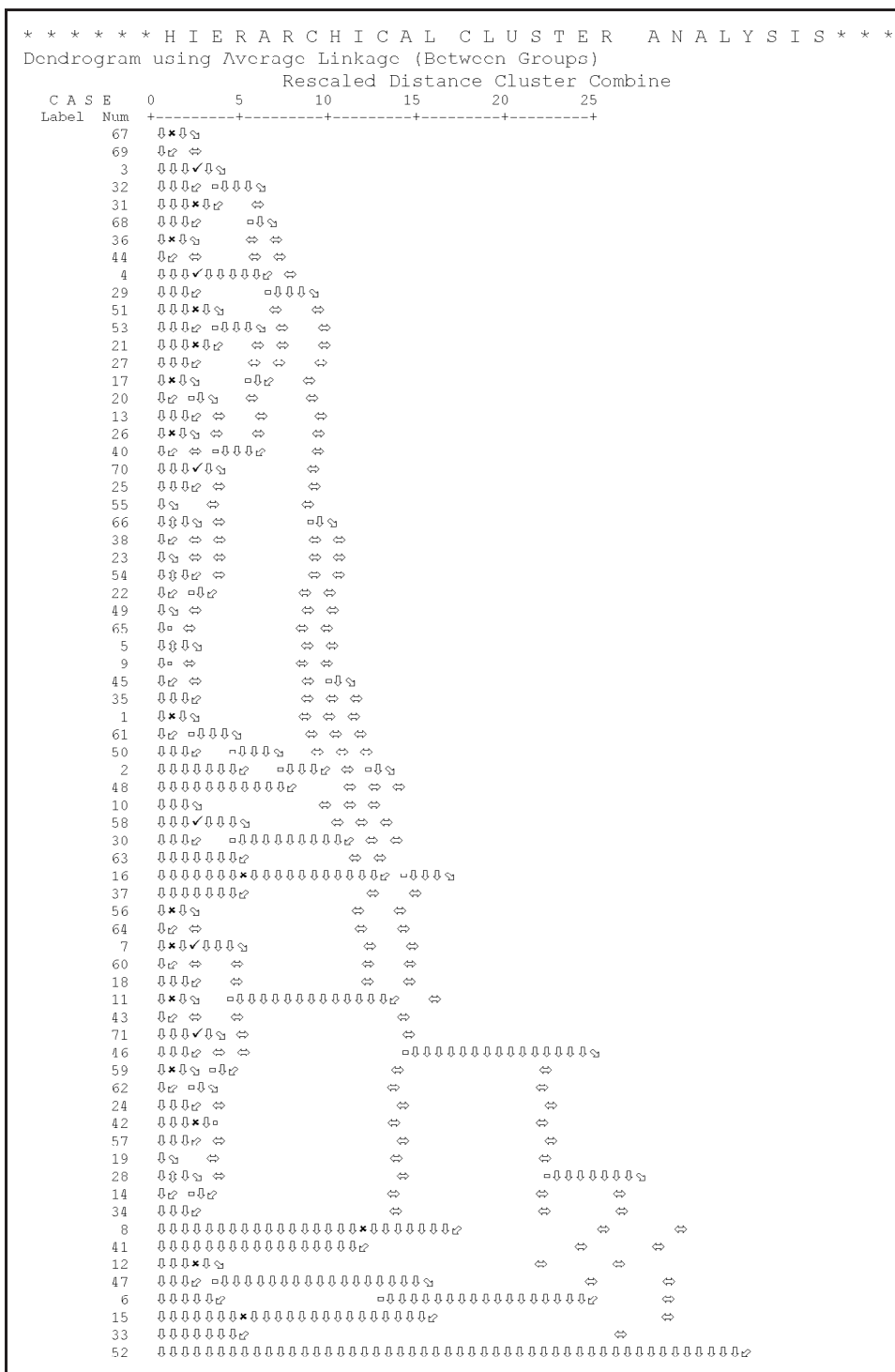
Thus, based on steps 1 (variable selection), 2 (similarities measure) and 3 (aggregation criterion) the authors identified: three distinct groups *before the course* according to the dendogram shown in Figure 3, gathered as follows:

- Cluster 1, composed of only one student;

- Cluster 2, Group A, composed of six students;

Table X	Affective/assessing dimension of attitude towards ethics before attending the subject of ethics and professional deontology: four answers with highest scores

Questions	Score
7. Professional secrecy; 8. Accusation of public crime	6.42
1. The existence of a deontological code; 14 Accounting information	6.09

Note: Scores greater than 5 on a scale of 1 to 7

Table XI	Affective/assessing dimension of attitude towards ethics after attending the subject of ethics and professional deontology: four answers with highest scores

Questions	Score
7. Professional secrecy; 8. Accusation of a public crime	6.40
11. An ethical TOC	6.23
1. The existence of a deontological code	6.19
6. The ethical principles	6.10

Note: Scores greater than 5 on a scale of 1 to 7

■ Cluster 2, Group B, Subgroup B1, composed of two students; and

■ Cluster 2, Group B, Subgroup B2, including 62 students.

Cluster 1, with little meaning as it concerns only one student, shows the maximum score of answers to questions 1, 7 and 8 (The existence of a deontological code, Professional secrecy and Accusation of a public crime), respectively and 5 in question 14 (Accounting information).

Cluster 2 has an opposite result: i.e. it has the highest score in the answer to question 14 (with 6.22 points) and the lowest in the answer to question 1 (with 4.98 points), where the authors can identify two groups that divide themselves into three sub-clusters:

1. The first sub-cluster, Group A, has an intermediate score in relation to the other two sub-clusters (Groups B1 and B2) concerning the four questions.

2. Subgroup B1 has answers with a higher score for questions 8 and 14, with 7.00 and 6.50 respectively, and lower scores for questions 1 and 7, with 5.00 and 4.00 respectively, when compared either with Subgroup B2 or Group A.

3. Sub-group B2 has an opposite result: i.e. it has higher scores for questions 7 and 1, with 6.52 and 6.10, respectively, and lower scores for questions 8 and 14, with 6.26 and 6.07, respectively.

After the course, four distinct groups were identified according to the dendogram shown in Figure 4, which are gathered as follows:

1. Cluster 1 – composed of only one student. Cluster 1, although representing only one student, has a higher score than Cluster 2 for questions 7, 8 and 14, and a lower score for question 1.

2. Cluster 2, subdivided by Group A (composed of five students) and Group B (composed of 37 students).

In Cluster 2 the two groups reflect different intensities about subjects on ethics, namely:

■ Group A always has the lowest scores when compared to Group B, yet it has high scores of about 5 points and the highest score in question 14 with 5.60 points and the lowest in question 7 with 4.60 points.

■ Group B gives particular relevance to question 7 with 6.57, points even though the other questions have high scores – 6.18 points in the question about accusation of a public crime and 6.14 in the questions about the existence of a deontological code and accounting information.
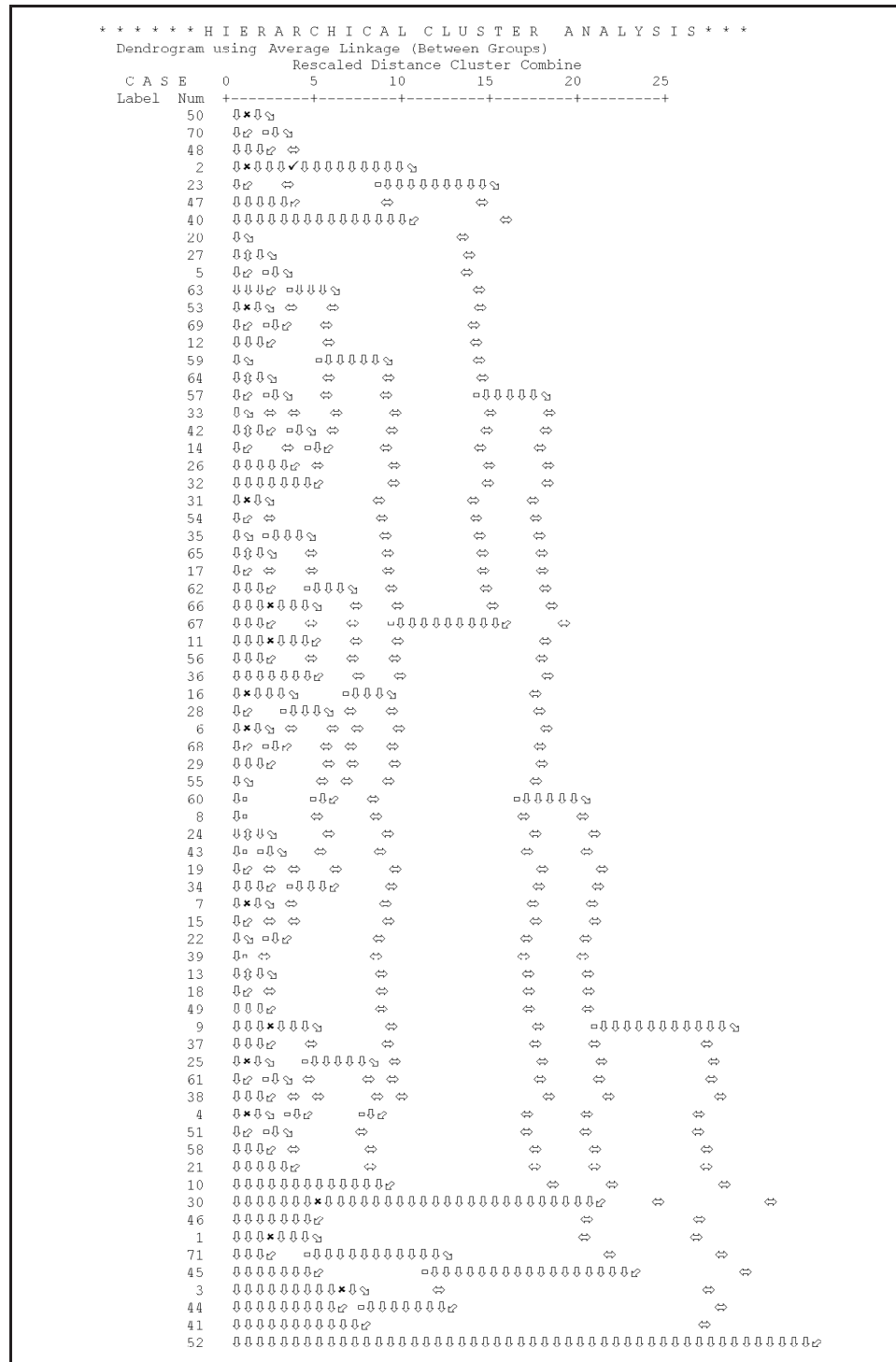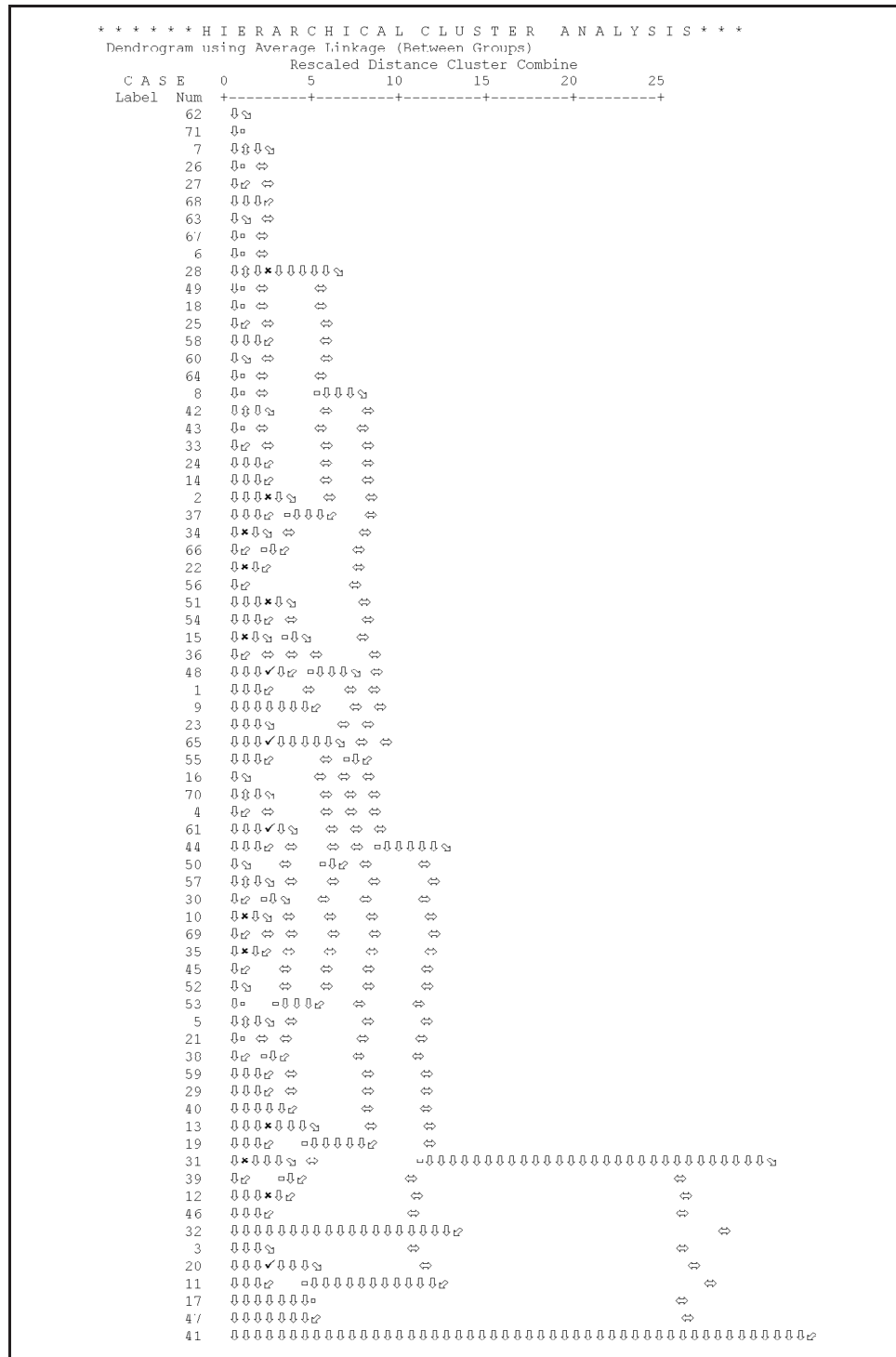
5. Discussion and limitations

This paper has considered the appearance of deontology with its corresponding codes in different professions. This research deals with the deontological codes of TOC and ROC, as they are the professions most closely related to the Accounting and Finance degree (which includes the subject of Ethics and Professional Deontology) and are properly regulated. The

```
* * * * * * H I E R A R C H I C A L   C L U S T E R   A N A L Y S I S * * *
      Dendrogram using Average Linkage (Between Groups)
                        Rescaled Distance Cluster Combine
   C A S E      0         5        10        15        20        25
   Label  Num   +---------+---------+---------+---------+---------+
```

concept of ethics is not a consensual one among different investigators: for some it means a set of rules, principles and values that may be mistaken for morals from a broader point of view. However, in this research the authors share the idea of some authors that consider ethics as a judging reflection upon morals.

After analysis, the authors have verified that there is a similarity between both codes, which is to be expected as these two professions belong to the same scientific or technical area

and are based on an identical normative work – accounting plans and norms. Comparing the CDTOC with the CEDPROC elaborated by CTOC and OROC, respectively, the authors verified the existence of the common deontological principles outlined below.

From the empirical research carried out in the classes of the Accounting and Finance degree of the ESCE of the IPS in 2005/2006, the authors can conclude that:

- Concerning the cognitive dimension of attitude towards ethics, the subject of Ethics and Professional Deontology strengthened the answers to the questions with lower scores. At the same time the authors could register a stronger Cluster 2, Subcluster B in particular, which changed from 43 to 63 students in a total of 71 students (which represents 89 per cent of the initial sample); This homogeneous group highlighted mainly questions 1 (An ethical attitude from the TOC/ROC allows a higher transparency in business, with a score of 6.58 points), 2 (Ethics must be normative, with 6.03 points) and 12 (A deontological code defines the ethical norms concerning a profession, with 5.58 points), in a reference scale that varies from 1 to 7 points.

- Concerning the affective/assessing attitude of ethics, the subject of Ethics and Professional Deontology strengthened the students' convictions about the importance of the existence of a deontological code, of ethical principles and of accounting information, as well as the question with the lowest score (the entity's interest is more important).

The authors could register a consolidation of Cluster 2 after the aforementioned subject by the number of students that compose it (initially subdivided into to sub-clusters with two and 62 students that changed into one cluster of 65 students, who represent 92 per cent of the sample), who consider professional secrecy (with 6.57 points), the accusation of public crime (6.18 points) and accounting information (with 6.14 points) extremely relevant. Since in previous school years this questionnaire – or any other equivalent one – was used not used, there are no elements of comparison to confirm in a stronger way the importance of a subject such as Ethics and Professional Deontology for students of the Accounting and Finance subject in the ESCE of IPS. It is our intention to examine this theme more thoroughly.

In summary, the authors teach Ethics and Professional Deontology as an essential need of society and as inherent to teaching activity: this must be promoted by policy makers. All these examples will have left an indelible impression that all is not well with the teaching world and that there are problems which need to be addressed (Crowther and Rayman-Bacchus, 2004).

References

Argandoña, A. (1997), ''La importancia de la ética en la empresa'', *Ética Empresarial e Económica*, Vida Económica, Porto.

Crowther, D. and Rayman-Bacchus, L. (2004), ''Perspectives on corporate social responsibility'', in Crowther, D. and Rayman-Bacchus, L. (Eds), *Perspectives on Corporate Social Responsibility*, Ashgate Publishing, Aldershot.

Lisboa, L. (1997), *Ética Geral e Profissional em Contabilidade*, Editora Atlas, São Paulo.

Mercier, S. (2003), *A Ética nas Empresas*, Edições Afrontamento, Lisboa.

Reis, E. (1997), *Estatística Multivariada*, Edições Sílabo, Lisboa.

Further reading

Câmara dos Técnicos Oficiais de Contas (1999), *Código Deontológico dos Técnicos Oficiais de Contas*, Câmara dos Técnicos Oficiais de Contas, Lisboa.

Câmara dos Técnicos Oficiais de Contas (1999), *Estatuto da Câmara dos Técnicos Oficiais de Contas*, Câmara dos Técnicos Oficiais de Contas, Lisboa.

Carreira, F. and Gonçalves, C. (2005), *A Avaliação da Dimensão Cognitiva face à Ética: Um Estudo Empírico*, Documento de Trabalho da ESCE, Setúbal.

Cravo, D. (1999), *A Ética como Factor de Diferenciação no Exercício da Actividade Profissional do Contabilista*, Estudos do ISCAA, Aveiro.

Mautner, T. (2005), ''Ética e moral, Crítica Revista de filosofia e ensino'', Australian National University, Canberra, available at: www.criticanarede.com/eti_eticamoral.html

Moreira, J. (2004), *Questionários: Teoria e Prática*, Almedina, Coimbra.

Ordem dos Revisores Oficias de Contas (1999), *Estatuto da Ordem dos Revisores Oficias de Contas*, Ordem dos Revisores Oficias de Contas, Lisboa.

Ordem dos Revisores Oficias de Contas (2001), *Código de Ética e Deontologia Profissional dos Revisores Oficias de Contas*, Ordem dos Revisores Oficias de Contas, Lisboa.

Pereira, A. (1999), *SPSS – Guia Prático de Utilização, Análise de Dados para Ciências Sociais e Psicologia*, Edições Sílabo, Lisboa.

Pestana, M. and Gageiro, J. (2000), *Análise de Dados para Ciências Sociais – A Complementaridade do SPSS*, Edições Sílabo, Lisboa.

Quivy, R. and Campenhoudt, L. (1992), *Manual de Investigação em Ciências Sociais*, Editora Gradiva, Lisboa.

Reis, E. (1999), *Estatística Aplicada*, Vol. 2, Edições Sílabo, Lisboa.

Singer, P. (1994), *Ética Prática*, Editora Martins Fontes, São Paulo.

Solomon, R. (2004), ''A ética empresarial: crítica revista de filosofia e ensino'', University of Texas, Austin, TX, available at: www.criticanarede.com/fil_eticaempresarial.html

www.manaraa.com

www.manaraa.com