

Ethics and moral leadership in Engineering Education

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1. INTRODUCTION

Moral leadership in academia means quality education. Managers must understand that improving quality begins with themselves and the fact that by their example leads others to behave differently. Improving quality requires a change of roles, responsibilities and behaviours of each Member of the organization.

Ethics and moral behaviour are the topics that we proposed to analyze, namely the way in which it dealt with the ethics of the candidates to the post of rector of the universities of Romania in their programs. They were included in the analysis of management of 41 programs, 18 universities in the country. Universities that were included in the analysis were 4 universities that are purely technical education, 7 universities are mixed and 7 are universities with non-technical education.

2. RESEARCH METHODOLOGY

What is ethics? **Ethics** is a system of rules and guidance for human behaviour. The code of ethics is a form of external control that represents the values imposed collectively by organizations or individuals professional associations.

The term ethics derives from the Greek ethos, meaning character or patterns of life. The moral term has Latin origin and means almost the same thing. Cicero is the ethos that translates in Latin America through the morals and customs. Today we use the word ethos referring to attitudes, characteristics, habits that are specific to a culture or nation or human group (as shown in the examples, the "French" ethos, "the

ethos of American" or "business" ethos – the business ethos). While it was possible the following distinction: Ethics is theoretical discipline that studies ideas such as Good, Bad, Debts, Rights, etc. (these are referred to, in General, philosophical ethics) or attitudes, characters, traditions, which is the morality of the people.

In short, the Greeks inherited the term designating the theory, and the Romans had the term that is the subject of the researched theory. However, according to one of the authors who have imposed the idea of business ethics (business ethics) (Robert C. Solomon, 1989) the etymology suggests the meanings of basic ethics:

- a) *Individual character*, including what it means to be a "good person" and
- b) *Societal norms* that govern and restrict our behaviour, in particular those relating to what is good and what is bad (which we call *morality*).

Thus, enough philosophers distinguish moral ethic this way: morality refers to human behaviour viewed through the prism of the values (of good and evil, right-wrong, etc.), and ethics refers to the study of all that fall into this area of moral values and rules in action. In ordinary language, the two terms are often interchangeable when we describe people that i consider good and their moral actions, correct. Also, the terms are synonymous unethical and immoral when we describe some people ill or when we say that their actions are immoral.

The word integrity, since etymologically, comes from the Latin in which is met in the form "i", meaning integrities "whole, complete".

According to the explanatory dictionary of the Romanian language integrity is "the virtue of being honest; honesty, uprightness; incorruptibility. " At the same time, the integrity of the integral of a character defines the individual feeling of dignity, justice and conscience, which serves as a guide in human conduct, honesty, honour and probity. It expresses the quality of being or to remain intact, whole, to remain unspoiled, unmodified qualities and properties.

Any organizational culture is based on a set of values, principles and norms, behaviours expressing unequivocally in every health organization and in direct correlation with the level of integrity. Organizational culture is defined by patterns of shared values and beliefs, which, in time, behavioural norms adopted in the resolution of problems.

Organization (Hofstede, 1991). The concept of the culture of the Organization, defines a system of values, therefore, assumptions, beliefs and norms shared by members of an organization, uniting them. They exhibit the following traits: they belong to individuals in your organization; form the basis of organizational culture; are a summary of the individual; are reflected in symbols, attitudes, behaviours and various structures; influenced the evolution and performance of the organization.

Public integrity can be defined both in terms of the integrity of the processes within the organization-making, implementation of decisions, management of public money and in terms of the integrity of public officials or personnel that operate within it (local elected officials, civil servants, personnel in institutions and public contracts). In terms of integrity, representatives of public entities are obliged to provide impartial and fair treatment of all persons is addressed. One of the components of public integrity is the transparency in the activity of public institutions, by which we mean the set of tools through which the Administration (the institutions and local public administration authorities or Central) gives account of citizens/taxpayers with regard to work carried out in these services.

Transparency is intended to prevent actions that threaten the integrity of the (corruption) and to evaluate the performance of public administration (administrative capacity).

3. CASE STUDY

To identify and measure the terms relating to ethics and integrity management programs we've used two benchmarks:

1. Code of professional ethics for the quality assurance and accreditation in higher education in Romania, carried out by the Romanian Agency for quality assurance in higher education (ARACIS).

This code „includes a minimum set of principles, values and rules of conduct to be taken as a reference to the activities of institutional self-evaluation and external evaluation of quality and accreditation of higher education institutions ". The values and principles formulated explicitly in this code are as follows:

1. Legality
2. Independence
3. Objectivity
4. Impartiality
5. Transparency
6. Personal responsibility
7. Professionalism
8. Open to new ideas
9. Dialogue and consensus
10. Confidentiality

2. Top public universities from Romania's integrity, carried out by the Coalition for Clean Universities, the 2010 Edition, which includes 42 State universities grouped into six categories, bounded by the number of stars earned. Thus, "a five-star" university is considered to be fair and transparent in terms of administration, an efficient management and a site updated daily. Also, academic performance are recognized internationally, and the University has not lost lawsuits related to fairness. According to this ranking is no University in Romania that meets these criteria. Areas in universities that have been evaluated are as follows:

1. Transparency and administrative fairness;
2. Academic fairness;
3. The quality of governance;
4. Financial Management.

We considered the values and principles announced in the analysis categories content by the code of ethics. The basic material contents are from 41 different management candidates programs. These are candidates for the rector position that are excerpted on the web pages of the university. This kind analysis unit represents the management program from some of the candidates. We have used the Hamlet software package for Windows to build the dictionary of categories and to identify the extent to which the values are listed in the managerial programs. At the beginning of the process procedure computerized analytical terms key choice is based more on

the mathematical information than on their subjective meaning. It assumes that a Word can be an indicator of a content categories to the extent that it has a relative high frequency. In this way we have built categories which are then systematically dictionary associated with narrative texts. This procedure converts unstructured text into structured data. The program then calculates the number of words associated with each category code.

The development and evaluation of the category dictionary was a burden which the applicant claimed a lot of work. The work done has confirmed his words R. Ph. Weber:

One reason why content analysis has no widespread use targeting the difficulty and the time periods involved if you want to be effective. Resolved some practical aspects of computers, but to produce results that are valid and useful theoretical point of view, the effort, skill and art (1990, p. 69).

Part of the difficulty lies in the extensive variability of human language that allows people to express the same idea in many ways.

As I mentioned the code of ethics were transformed in the categories of content analysis. In the concept map in Figure 1 we have illustrated the fact that the objectives of the management programs are formulated by the candidates on the basis of these values. An objective formulated by a manager, its attitude towards goals determines the direction in which the organization is heading. Starting from the premise that a managerial plan reflects the needs and wants of the organization he runs, we can say that the programs of the candidates' rector management are geared for the axiology of the code of professional ethics.

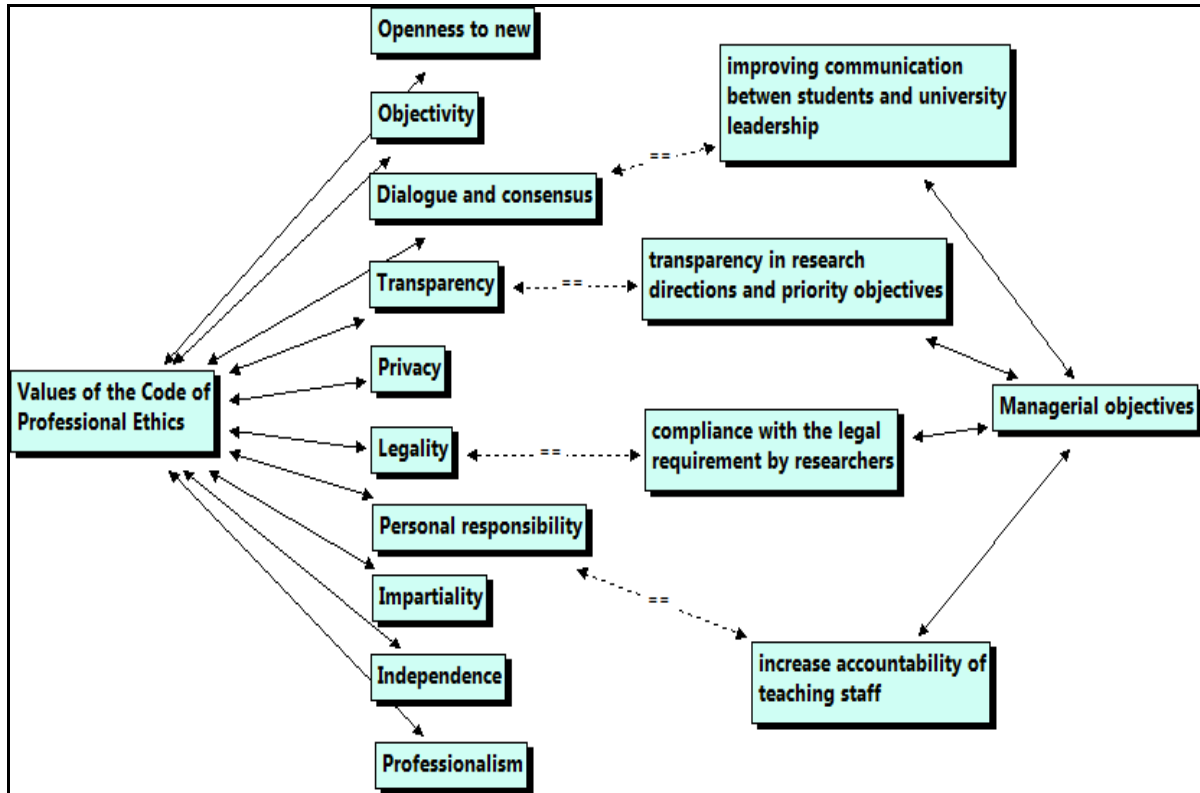


Fig. 1. Ethical values and managerial goals.

As a result of the category dictionary text have yielded the following results:

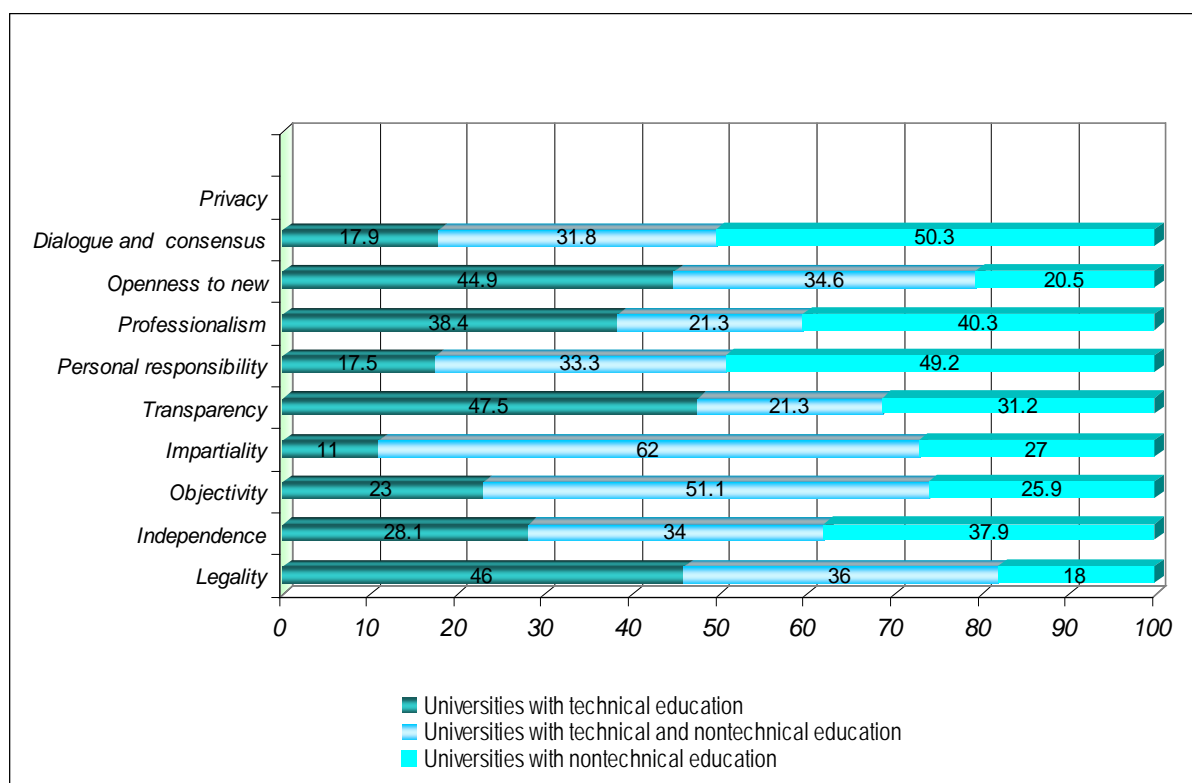


Fig. 2. Ethical values in management programs depending on the type of University

Besides the fact that they are ethical values, some of these categories represent economic backgrounds and leadership characteristics, such as openness to new or personal responsibility. Note that the most common terms relating to ethics is that candidates from the universities rector use in their speeches are transparency (47.5% of the total claims belong to the technical universities), legality (46%) and the opening of the new (44.9%), being considered as the most important values for effective management. The fact that these values can be found in most technical universities lies in the fact that they are direct with predilection towards research. To generate a valid research results must first be carried out in a legal framework and to have a high degree of confidence on the part of domestic and international universities the University and must ensure transparency as regards the research methods used. Rapid changes occurring in the technical field and the imperative of adapting rapidly to these changes explain why managers in technical universities promote the new opening.

Candidates from universities with mixed educational most often use allegations relating to impartiality (62%), objectivity (51.1%) and legal (36%). Universities with classical education have as its main values in management programs made by University Presidents, possible dialogue and consensus (50.3%), personal responsibility (49.4%) and independence (37.9%). The notion of confidentiality was the only one who has not identified in any of the programs.

In table 1 we assigned the frequency of ethical values that indicates the terms with the score obtained in the integrity of universities. But the results do not indicate an Association of these two variables. The presence of the ethics program as value of University management, managerial objective or as a feature present in the profile of the candidate to the position of Provost does not involve a general ethical conduct within the University or academic integrity by default.

	Average Clean Universities Ranking	Statements relating to ethical values
University of Medicine and Pharmacy Târgu Mureș	4	14
University of Medicine and Pharmacy "Iuliu Hațieganu", Cluj Napoca	4	17
University "Alexandru Ioan Cuza", Iași	4	7
The Academy of Economic Studies, Bucuresti	3	18
University of Petroșani	3	14
University "Petru Maior", Târgu Mureș	3	15
University "Dunărea de Jos", Galați	3	5
University "Transilvania", Brașov	3	3
The Technical University of Cluj-Napoca	3	7
University of București	3	8
University "Babes - Bolyai", Cluj Napoca	3	9
The Technical University "Gheorghe Asachi", Iași	3	1
"Politehnica" University, București	2	12
"Politehnica" University, Timișoara	2	6
Ovidius University, Constanta	2	16
Technical University of Construction, București	2	11
University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca	2	10
University "Lucian Blaga", Sibiu	1	4

Table 1. "Top universities" and the frequency of claims relating to ethics in management programs

When we talk about academic integrity, a topic that deserves special attention is that of ethics in scientific research. For this purpose we analyzed the plans of management for technical universities included in the study. Problematic ethical research has not been addressed by the candidates than in isolation, under conditions in which plagiarism, conflicts of interest and intellectual fraud is widespread in the academic community and are a subject of topical interest for the public opinion.

4. CONCLUSIONS

In any manager activity, the project is designed and refers to anticipation, identification or establishment of a framework or of a hypothetical action model to be applied in order to develop an institution, and is planning the development and selection of finalities what will be tracked over a period of time, and the methods by which they can be achieved. In this study we aimed to find out if the planning of the programs of the candidates for the managerial rector is targeted by the axiological ethic values, if they are items that circumscribe the mission of the University.

We used this as a reference in the managerial discourse analysis of the values and the principles of the code of professional ethics for the quality assurance and accreditation in higher education in Romania. The data we analyzed in the speeches of the technical university candidates showed that the speeches are presented with certain expressions relating to transparency, legality and open to new ideas.

Transparency is mentioned in the connection with the evaluation activities, revenue management, and research methods. In this way, scientific results are obtained and connections are made in partnership with other universities. The rector candidates generally speak of transparency structure in decision making that are implied direct and that are directly affected by all the other activities listed.

Closely linked to transparency is legality. This is addressed generally in connection to promotion, remuneration of teachers, and funding mechanisms.

As we mentioned before, there are references that are not presented out the legal framework related to research or evaluation (e.g. Intellectual fraud)

Being open to new ideas is characteristic of technical universities. Since changes occur rapidly in this area, it is essential for universities to be open and adaptable. This idea helps the university to be competitive and improve their performance.

These are not the only values promoted by the technical universities. As far as we have seen, all the values of the code of ethics are presented in the managerial discourse. There are of course minor exceptions. But what we highlighted in this presentation are the ones that were presented more in managerial programs in technical universities compared to other universities.

Of course, these terms are used in presenting the program, regardless of the profile of the university. These do not ensure successful management; neither does it provide a moral leadership. But we considered verbal behavior in this context as a part of human behavior. This is observed and measured by means of a systematic analysis.

A University modern leader must possess the personal authority based on professional and managerial skills freely acknowledged by members of the University community as being beneficial to the interests of the University. He must be a strong and credible personality to be a visionary spirit, be willing to understand and apply new ideas, able to manage change, to promote flexible organizational structures and to share responsibility with the team that runs the University. To do this he must know himself, as he argued that the best Mintzberg the education for leaders is the reflexive practices that help them to understand and change their own behaviour (Mintzberg, 2004).

The leaders along with other members of the academic Corps have a significant contribution to the ethical reputation of the universities and their declarative reporting to ethical aspects have an immediate impact on students, teachers and the general public. Although examples of unethical behaviour as plagiarism, fraud, intellectual or other cases of corruption are common in the mass media, in informal discussions between students in the literature about the ethics of the University environment they are not part of the discourse of management candidates for the rector.

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