

# Professional Ethics in Construction Industry of Pakistan

Nadeem Ehsan, Sohail Anwar, Muhammad Talha

**Abstract:** - This research paper addresses the ethical issues facing the construction industry of Pakistan. It forms a framework for ethical standards in the construction industry by recommending concrete measures. These have been based on the identification of ethical issues from the results of comprehensive and in depth research carried out through questionnaire survey, interviews and telephonic survey of various stakeholders in sample projects, employees of each of them and also study of related engineering journals. Although Pakistan Engineering Council (PEC) does provide guide lines on the issue but these are rarely followed in true spirit. The existing standards have been compared with our socio cultural traditions and with ethical standards and practices of developed countries. Finally, a mechanism has been recommended which can deal with most of the ethical issues confronting construction industry of Pakistan.

**Index Terms:-** Construction industry, professional ethics, Pakistan.

## I. INTRODUCTION

For the building and designing professions, the incalculable value of human life demands nothing less than the highest moral considerations from those who might risk it otherwise [1]. The engineering profession since has direct effect on the lives of people, these professionals owe special moral responsibility. However, it has been suggested that professionals in general tend to believe that their obligations to their clients far outweigh their responsibility to others, such as public [2]. Because of their knowledge and

importance in society, engineers should have standard of conduct to answer ethical questions [3]. The construction process involves conceptualizing, designing, managing, organizing and coordinating project requirements including time, money resources, technology and methods; these must be integrated in the most efficient manner possible to complete construction projects on schedule, within the budget, and according to the standards of quality and performance specified by the project owner or designer. This demand from professional engineers to possess strong fundamental knowledge of engineering design and management principles, besides knowledge of business procedures, economics, and human behavior is realistic. Engineering, as a profession and also a business, is at the sharp end of the ethical practice. Far from being a bolt on extra to the 'real work' of the engineer, it is at the heart of how he relates to the many different stakeholders in engineering projects.

Engineers confront dozens of issues, many of which have substantial impact on their own self or organization, as well as others involved in the project. Many decisions have a straight forward answer determined by contract language or budget. Some, however, require entering an indistinct gray zone where the engineer must use best judgment to devise a course of action. Ethical questions raised include: what happens when professional codes and regulations lag behind technological innovations; what precautions must engineers take when trying to balance the benefits, new technologies bring against risks to public safety, often associated with engineering innovation and what are engineering and corporate responsibilities to the public for failed innovation; and should he hold the payments for the benefit of his organization. Often these challenges are managed with little or no preparation or

Dr. Nadeem Ehsan is PhD in Construction Management from University of Michigan Ann Arbor State, USA. He is teaching with Centre for Advanced studies in Engineering (CASE), Islamabad (email: m4nadeem@yahoo.com).

Sohail Anwar is MSc in Engineering Management from CASE. Now he is student of PhD in Engineering Management at CASE (Phone: 00923335479370; email: [sohailmalik72@yahoo.com](mailto:sohailmalik72@yahoo.com)).

Muhammad Talha is MSc in Engineering Management from CASE. He is Director in National Highway Authority of Pakistan (email: talh127@yahoo.com).

formal guidelines and sometimes with negative results. Engineering ethics is attracting interest in colleges of engineering throughout the world. Therefore, the new technology must address the human being as its central subject and has to be introduced by ethics [4].

Ethics criterion for the engineer group is necessary [5]. Many American engineering professional societies have prepared codes of ethics; some go back to the early decades of the twentieth century. These have been incorporated to a greater or lesser degree into the regulatory laws of various countries. The Institution of Civil Engineers (ICE) in the UK has a code of ethics incorporated into its standards of conduct. The Canadian societies of professional engineers likewise have such codes of conduct as well. In Pakistan, the code of conduct is called the Pakistan Engineering Council Code of Conduct. These codes of ethics share many similarities. Engineering, however, does not have a single uniform system or standard of ethical conduct across the entire professional fields. The professional responsibilities and obligations of members towards their peers, their clients and the general public are usually delineated within these codes of conduct [6]. Ethical approaches vary somewhat by discipline and jurisdiction, but are most influenced by whether the engineers are independently providing professional services to clients or the public if employed in government service; or if they are employees of an enterprise creating products for sale.

Codes of ethics are developed mainly for practical and professional use, supplementing the building codes and other acts of law. These ethical aspects were considered based on man's natural morals [7] and in term of their practical implications in form of applied ethics [8]. Ethical studies in the construction industry in other countries have also been studied by different researchers like *Vee and Skitmore, (2003)*, *Bowen et al., (2007)* and *Fan et al. (2001)*.

Looking at the underlying value systems, the present study is designed to analyze the ethical dilemmas in various segments of the construction industry in Pakistan. Study includes philosophical foundations for ethical model applications and the development of ethical dilemma resolution. This study highlights the ethical dimension of engineering and shows how values and responsibility relate to everyday practices.

## II. METHODOLOGY

The objective of the present study was to investigate into the current status and practices of ethics in construction industry of Pakistan by administering a pre-designed questionnaire, from the feedback of contractors, engineers and consultants in Pakistan.

Project managers/ contractors/ engineers/ consultants/ architects were sampled from different locations of Pakistan as the population of the study. A questionnaire consisting of twenty questions was distributed among the sampled population. Three options were given to the respondents i.e., Yes, No and Sometimes. The feedback was analyzed and tabulated using simple computer applications like MS Excel. The pre-designed questionnaire was administered among the sampled population either by personally visiting the consultancy firms, engineers or by collecting information through telephone. The collected data was then analyzed and tabulated in the form of data tables. Based on the information collected through the questionnaire, the problems related to ethics in the construction industry of Pakistan were identified and the probable solutions were suggested to improve the practices in line with the ethical concerns.

## III. RESULT AND DISCUSSION

Everyone involved in construction has a personal code of professional behavior [9]. Faculty of Engineering does not have a single uniform system or standard of ethical conduct across the entire profession. The information collected from the questionnaire revealed that although all (100%) the engineers, constructors and consultants are members of (Pakistan Engineering Council) PEC but many (65%) did not know about the existence of code of ethics and code of conduct of PEC. Out of those who knew about it (35%), about 50% had never read these codes. Almost all the respondents (90%) admitted the importance of code of ethics in organization, the industry and the project itself. Good ethical practice is considered to be an important organizational goal [1]. Few (15%) experienced the cases of employers forcing them for unethical conduct. Majority of the surveyed individuals (75%) stated faulty systems besides unrealistic estimates/targets to be the main cause of

unethical behavior of the organizations or individuals. At the same time there was not a single person related to the construction industry who had not experienced some degree of unethical conduct in the form of undertaking work beyond capability (15%), bribery (20%), favoritism (30%), unfair conduct (30%), strict rules (18%) and overriding of audit process over contracting process (35%). Bribery and political corruption is being addressed very directly by several professional societies and business groups around the world [10].

It was stressed that audit staff dealing with construction industry should have construction know how as they concentrate only on the financial aspects of the project neglecting the most important aspect i.e., the technical part. This results in adoption of unethical means by the concerned people, which can be avoided if they are not penalized on account of given preference to technical aspect on financial aspect.

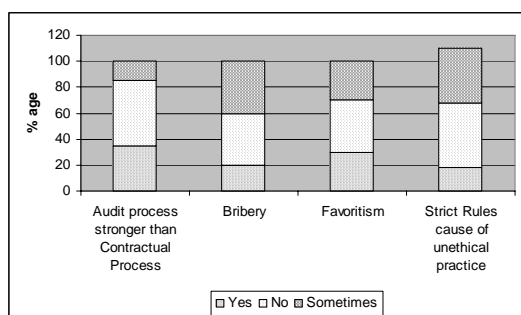


Fig. 1 Graph showing state of audit, bribery, favoritism and strict rules affecting ethics in Construction Industry.

Ethics as a subject is not taught in the elementary / undergraduate / graduate studies in spite of the importance of this subject for the profession. To put the system right, everybody termed teaching of ethics an important foundation stone. Response of all respondents was an overwhelming “Yes” that ethics as subject may be included in basic education and in undergraduate and graduate level. Concepts and perceptions of professional ethics results from the prolonged professional socialization process during both college/university and industry training [11].

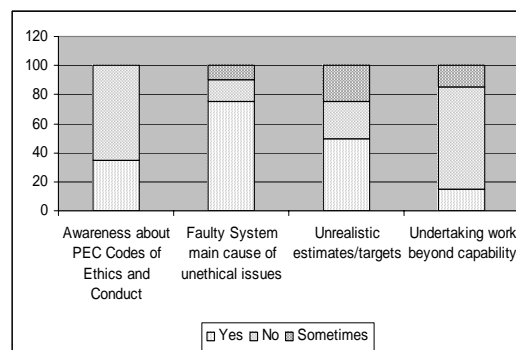


Fig. 2. State of awareness about PEC's codes affecting ethics in the Industry.

The participants opined that the Byelaws of civic bodies should be more practical and realistic. Changing of byelaws should not be in the purview of the departments.

#### IV. SUGGESTED SOLUTIONS

Ethics is a very important issue of the engineering profession. The suggested solutions have been categorized into short, medium and long term categories based on the time frame of planning and implementation.

##### A. Short Term Measures

Ombudsmen system in all departments should be enforced to receive complaints in the construction Industry. The same may then be addressed at PEC's forum. Effective punishments such as penalties or even cancellation of license on repetitive violations may be introduced.

##### B. Medium Term Measures

Indigenous quality assurance group should be part of every project team to ensure quality along with ethical practices. Their performance should be monitored by PEC.

Consultant and architect organizations need to be regularized through laws.

Internship should be made obligatory for young engineers for a period of six months with the organizations approved by the PEC, grooming them on professional matters including the ethical aspects.

Indigenous construction materials/ products of international standards and quality can be developed with reduced costs and used in construction to support the local industry to reduce the overall cost of the projects. The practice of cost effective risk management and the integration of environment and economics in engineering decisions have been recognized [12]. Government bodies

under the guidelines of PEC should take on the research and development of new and innovative products relating to construction industry.

Media's role in promoting ethical society is more relevant today. It can play a very important role in overcoming ethical dilemmas and formation of an ethical society by debating on these issues publicly. In this regard, their training and awareness is of paramount importance.

#### C. Long Term Measures

The role of independent judiciary in the implementation of law cannot be overemphasized.

PEC's code of conduct is comprehensive and covers most of relevant aspects of ethics. Unfortunately, the implementation of the code is not very effective. In order to make it more effective these should be made part of PEC byelaws. At present the scope of PEC as compared to the responsibility it has, being the only governmental body for enforcing engineering regulations is restricted and needs to be broadened to an extent that effective checks are imposed on all the stakeholders for best interest of projects and the profession itself.

Research and development should be organized in private sector and the government to take on this important issue to effectively address the matter.

Civic bodies should be headed by people with ethical training as they are more likely to ensure ethical practices in the institutions as well as the environment surrounding them.

Tradesmen/technical manpower should not be allowed to work till the time they get proper training through recognized training institution. HEC should identify the requirement of technical know-how required by various tradesmen and then correspondingly pursue establishment of technical institutions through TEVTA etc

#### V. CONCLUSION

Construction Industry plays an important role in the economy of any country as the major part of development is contributed by this industry. For obtaining optimal benefits from this field and for the smooth functioning of this industry itself, professional ethics play a vital role. Although, a lot of modernization in the form of modern techniques and advanced technology has made its place quite effectively, but at the same time, it can very safely be

commented that inculcation of professional ethics in the culture of this industry is crucial for its growth.

#### REFERENCES

- [1] Vee, C. and C. Skitmore." Professional ethics in the construction industry". *Engineering, Construction and Architectural Management*. 10(2), pp 117-127, . 2003
- [2] Johnson, D.G., 1991, Ethical issues in engineering, Prentice Hall, New jersey: USA
- [3] Belis, J. and R. V. Impe. 2001. Ethics in engineering today. *Creative system in structural and construction engineering*. p 21-25.
- [4] Cywinski, Z. 2001 Ethics-Essential quality of the civil engineering profession. *Creative system in structural and construction engineering*. p 27-29.
- [5] JUN, F. 2000. Towards the Construction of Engineering Ethics. *J. Japan Soc. Mech. Eng.* 103 (974) 24-26.
- [6] Bowen, P., R. Pearl and A. Akintoye. 2007. Professional ethics in the South African construction. *Building Res. Information*. 35 (2): 189-205.
- [7] Darabarek & Symotink, 1999
- [8] Schaub, J.H. and K. Pavlovic. 1986. Engineering Professionalism and Ethics. *Krieger Publishing Company; New Ed edition*.
- [9] Rooley, R. 2001. Ethics in Construction and Arbitration-Profession codes of conduct and the law. *HPAC Engineering*.
- [10] American Society of Civil Engineers (ASCE), 2005. Report Details Guidelines to Reduce Corruption in Engineering and Construction Industry". Press release. 10-20.
- [11] Fan, C.N.L., M.H. Christabel Ho and Vincent Ng. 2001. Effect of professional socialization on quantity surveyors' ethical perceptions in Hong Kong. *Engineering, Construction and Architectural Management*. 8(4): 304-312.
- [12] American Society of Civil Engineers (ASCE) 2000. ASCE Official Register 2000.
- [13] Whitbeck. 1998.

**QUESTIONNAIRE FOR THE ASSESSMENT OF CURRENT STATUS OF ETHICS IN THE CONSTRUCTION INDUSTRY OF PAKISTAN**

Serial	Question	Yes	No	Sometimes
1.	Are you a member of PEC?			
2.	Do you know any such thing as PEC Code of Conduct or PEC Code of Ethics?			
3.	If yes in above question, have you ever read them?			
4.	Do you think Organizational code of conduct and ethics is important for an organization?			
5.	Do you have an ethical code of conduct in your organization?			
6.	Have you ever noticed anyone sacrificing the national interest for any personal gain?			
7.	Have you ever noticed individuals or organizations undertaking work without adequate qualification/experience/ training?			
8.	Is the contracting process being overridden by audit?			
9.	Are you aware of any case of employers attempting to force their employees to do unethical conduct?			
10.	Have you ever witnessed unethical conduct in form of a. Compromise on quality b. Unfair conduct c. Conflict of interest d. Fraud e. Favouritism f. Gifts, meals, services, and entertainment g. Bribery h. Yes Boss culture			
11.	Did you notice anyone accepting commission, directly or indirectly from contractors or other parties?			
12.	Do the unrealistic/hard targets lead to adopting measures, which are more prone to unethical practices?			
13.	Are there any effects of societal unethical issues on construction industry?			
14.	Should the ethics be included in the curriculum and teachers emphasize its importance.			
15.	Do you support win-win situation for all stakeholders of the project. If yes, have you seen any situation going against it?			
16.	Do you think the engineers work on part-time basis without the consent of the employer?			
17.	Do the engineers recognize the safety of public when considering personal/ organizational benefits?			
18.	Have you experienced unrealistic political pressure or any compulsion in the completion of the project regarding time-frame?			
19.	Do you consider it difficult to follow the rules of ethics in the construction industry of Pakistan?			
20.	If the answer of question no. 19 is Yes, then why? Because of :- a. Strict rules. b. Weak System (Personalities being more powerful than system). c. Inflexible governmental rules. d. Weak accountability system.			