

A study of quantity surveyors' ethical behaviour

LINDA FAN*, CHRISTABEL HO and VINCENT NG

Department of Building and Real Estate, The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong

Received 14 June 1999; accepted 4 May 2000

Several contemporary theories of ethics are reviewed and then linked to professional ethics. A questionnaire survey was conducted to collect primary data regarding quantity surveyors' attitudes towards professional ethics. The subjects were members of the Hong Kong Institute of Surveyors (HKIS). Systematic multivariate statistical analyses, such as ANOVA, F-distribution, and test for significance, were used to draw insight from the survey results. A discrepancy in the standards of professional ethics between senior and junior surveyors was found in the survey. In addition, wide and significant variances towards ethical concepts and decision-making considerations were found between senior and young practitioners. The results also show that the respondents attach great importance to the interest of their employers, their clients and themselves, which is not in line with the expectations of the general public. These findings provide useful information for researchers in studying specific ethical decision-making models as well as drafting more theoretically based rules of conduct.

Keywords: Ethics, professional ethics, surveying profession, rules of conduct, ethical decision-making models

Introduction

During the 1980s and 1990s there have been many challenges to the ethics of business-oriented professions. Unfortunately, construction professionals have been involved in some cases of unethical behaviour. A number of surveyors and engineers have been found guilty of dishonourable conduct. For example, a case was revealed in which housing blocks decayed at an unexpectedly speedy rate because the reinforced concrete was mixed with salt water. Surveyors provided false information to their clients. Charges against surveyors include failure to maintain PI insurance run-off cover and failure to provide accountant's reports (RICS, 1999). In 1998, there were 15 foundation sites in Hong Kong where the piles were found not to reach the designated safe bearing stratum.

The above mentioned professional deficiencies have greatly tarnished the image of a profession which

assumes the role of fulfilling the needs of the general public. The currently hostile economic climate is compounding the problem by adding stress to ethical dilemmas. The issue of professional ethics has sparked enthusiastic concern and pragmatic discussion among the general public.

One may ask whether there is something wrong with construction professionals. What are their attitudes toward ethics? Is the educational function of bye-laws and rules of conduct as satisfactory as it appears? Is the inflexibility of the structured and pre-determined procedures laid down years ago still able to cope with the rapidly changing ethical environment in a vibrant business world?

The high standards of services expected from professionals by the public have complicated as well as widened the study of ethics. Not only philosophers and academics but also professional practitioners are actively contributing to the literature of ethics. Their primary interests lie in applying ethics theories in controlling standards of practice of professionals (Carey

* Author for correspondence. e-mail: bsfan@polyu.edu.hk

and Doherty, 1968; Gavin *et al.*, 1991; HKEDC, 1996, 1997).

As a profession embracing a number of disciplines involved with land and its development with buildings (HKIS, 1998), professional surveyors are undoubtedly subject to the 'sun-shine test' a self-test for evaluating daily practice and behaviour, which can fulfil the expectations of the public, HKEDC, 1996). In response to the call for improving professional ethics and standards, a research study for investigating the ethical behaviour within the surveying profession is urgently needed.

Research on ethical problems

This research on 'ethical problems in the construction profession', funded by the University, commenced in 1998, and this is the first in a series of papers studying the perceptions and norms of professional ethics shown by Hong Kong practising quantity surveyors. The quantity surveying profession is one out of four main surveying disciplines in Hong Kong which is identified for study in this research.

Using ethics theories as a frame of reference, the existing ethical norms of professional surveyors' conduct were studied as the first step in this inquiry. Four research objectives are identified in this paper.

- To determine the perception of the ethical standards of professional quantity surveyors
- To establish an overview of quantity surveyors' (QS's) ethical concepts
- To determine the perception of important constituents affecting ethical decision-making
- To reveal the attitudes and actions taken towards ethical dilemmas

Background studies

Definitions of ethics

Ethics is derived from the Greek term *ethos*, and has its roots in the word 'customs'. Ethics has no necessary connection with any particular religion, nor with religion in general (Singer, 1994). Singer claims that ethics exists in all human societies, and perhaps even among our closest non-human relatives as well.

Ethics is the science of the moral in its simplest form. According to the evolutionists' perspective, people evolve their morality from their own social life and preserving traditions. Ethics thus constitutes part of the custom. This is the relative conception of morality given by sophist Protagoras (450–400BC).

Ethics is the study and understanding of morality, moral principles, and the moral decision-making

process. Masserly(1994) asserts that ethics is that branch of philosophy which deals with the good and bad or right and wrong in human conduct. Popkin and Stroll (1993) hold that ethics refers to a code or set of principles by which people live. It would be a mistake to regard ethics as a purely 'academic' study, having no intimate connections with people's daily lives. Every person who is reflective and who is troubled by certain situations/dilemmas in his or her daily life is, to some extent, a philosopher of ethics.

Definitions of business ethics and professional ethics

Business ethics, as an applied version of ethics, then typically involves two tasks: the normative task of providing justification for abstract standards of behaviour and the practical task of applying these standards to business conduct (Velasquez, 1996). Business ethics concentrates on how moral standards apply particularly to business policies, institutions and behaviour (Velasquez, 1996). Generally, Velasquez (1982, p. 57) concluded that: '[Business ethics] is the application of our understanding of what is good and right to that assortment of institutions, technologies, transactions, activities, and pursuits which we call "Business".'

This definition of business ethics matches the definition of professional ethics given by Carey (1968) in the sense that professional ethics involves both moral and practical concepts.

Ethics and professional ethics

'The word "ethics" in general usage means the philosophy of human conduct with emphasis on moral questions of "right" and "wrong". "Professional ethics", however, does not involve moral questions exclusively. . . . [It] may be regarded as a mixture of moral and practical concepts . . .' (Carey, 1968, p.5). Carey (1968) succinctly points out the fundamental difference between 'ethics' and 'professional ethics'. According to the HKEDC (1996) the normative definition of 'professional ethics' is already tied up with more practical concepts and expectations from the public, like competence, responsibility, and willingness to serve the public. From the public's perspective, the general normative rules of conduct are now made more stringent and specific to particular professions. Each profession involves a particular kind of relationship with clients, or patients, arising from the complexity of the subject matter (Chalkley, 1990).

Bayles (1989) defines professional ethics as a system of norms. However, professional ethics does not concern all the norms that apply to professionals but only those that pertain to them in their professional

conduct and activities. Some norms apply to all people; others apply to people in particular roles, i.e. role-related norms. Consequently, both universal norms and professional role-related norms apply to professionals in their professional activities and are included in professional ethics.

Ethical concepts and theories

When philosophers speak of ethics, they do not, however, employ the word only in this sense. They also mean by it a theoretical study. The objects that are studied in ethics are theories. These theories, called ethical theories, deal with questions like how ought people to behave? Or what kinds of acts are moral? In addition to searching for the bases of morality, ethical thinkers and philosophers also developed certain criteria for assessing the morality of human decision-making. These criteria were later modified to evolve as ethical theories. Generally, ethical theories can be grouped into two sets, namely consequential and deontological.

Consequential theories

Consequential theories deal with the consequences of an action, which predict that an individual will act in such a way as to maximize his/her benefit for the greatest good for the greatest number of people, or minimize losses. Egoism and utilitarianism are representative examples of consequential theories. Egoism and utilitarianism focus on the same issue of an action and differ only in the balance between individual good and social good. According to the encyclopaedists and materialists in the 1600s and 1700s, egoism focused on self-love and self-interest in assessing the morality of an individual action. Singer (1961) further developed this idea in the 20th century: that an individual's self-interests and values are the deciding factors for judging behaviour. Bentham (1789) and Mill (1863) formulated utilitarianism which is developed from Locke's idea in the school of utilitarianism and claimed that moral behaviours produces the greatest good for the greatest number. Cederblom and Dougherty (1991) further dichotomized utilitarianism into act-utilitarianism and rule-utilitarianism. The former advocates the maximization of happiness in performing an act, whereas the latter only tests whether an act would end up in more happiness than unhappiness.

Deontological theories

Deontological theories are simply non-consequential theories which look at the means of arriving at ethical decisions, e.g. theory of rights, theory of duty, theory of justice and categorical imperative. In the 1600s,

Shaftesbury laid the foundation for the theory of rights and explained the origin of the moral conceptions. Subsequent advocates of moral rights classified the fundamental rights of humans into different branches, e.g. the right to free consent (Hart, 1955), the right to privacy (Miller, 1971), the right to freedom of conscience (Waltzer, 1967), the right of free speech (Eells, 1962). Duty and categorical imperative, as developed by Kant (1785, 1797), attempted to capture basic and commonly held intuitions about morality.

Ethical decision-making models

There is a trend in current literature of combining various ethical theories to develop ethical decision-making models, e.g. Cavanagh *et al.* (1981, 1995), Brady (1985, 1987), Pastin (1986), Cody and Lynn (1992). Most researchers of business ethics strive to combine and differentiate concepts of ethics, e.g. duty, right, justice, utility, etc., in developing their own decision-making models. Contemporary arguments focus on revolving around the competition as well as complementarity between 'rule ethics'. Pastin (1986) and Cody and Lynn (1992) demanded a compromise of the two ethics. Brady (1985, 1987) then proposed his deontology-utilitarianism (DU) model that combines the two classes of ethical theories in a broad sense for ethical decision-making. It is claimed that this model has captured the whole spectrum of the ethical decision-making behaviour of humans.

Cavanagh *et al.* (1981) combined utilitarianism, theory of rights, and theory of justice into a comprehensive utility-rights-justice (URJ) model in an attempt to uphold ethical quality. In responding to Brady and Dunn's (1995) critics, Cavanagh *et al.* (1995) borrowed the concept of care (Gilligan, 1982) from feminist ethics. They modified their URJ model to include this new element, and proposed their URJ(C) model, where (C) stands for care. Despite their theoretical bases and differences, both the DU model and the URJ(C) model aim at dealing with ethical decision making in management. In other words, these two and all subsequent models are indeed applied versions of ethics specifically for managerial decision-making.

Applying ethical theories to the surveying profession

Modern society has become more and more sophisticated and complex. As the number of professions and professionals increases and their decisions become more essential for the operation of a technologically complex society, the conduct and ethical principles of

the professions as well as the enforcement of standards become matters of increasing importance to everyone. In the last two decades, many cases have been revealed associated with ethical misconduct in all areas of the construction professions, such as engineering and surveying. Some of the practices of surveying professionals are defective from the moral point of view, despite the impression conveyed by their code of ethics and other ideological instruments. Traditional ideas on the surveying profession and professional conduct have been challenged by recent social, political and technological changes. It is the main theme of this research to study the ethical behaviour of the surveying profession in order to reveal its perception, attitude and response towards ethics and ethical dilemmas.

Research methodology

Research approach

The research approach is similar to the study by Gavin *et al.* (1991). This is due to the fairly similar working natures of quantity surveyors and accountants, which will facilitate a cross-profession comparison. Because of the different statistical analysis approaches and research directions of the two studies, a cross-profession comparison will be the theme of a further study.

As a result, the Quantity Surveying Division (QSD) of HKIS as at 30 August 1998, which constitutes more than 40% of HKIS membership, was identified as the subject for this study. The questionnaire was adopted as the survey instrument to gather information from the population (QS) in this research. Respondents were classified into seven reference groups according to membership, gender, age, education level, organization level, experience and management. Pearson's and Spearman's correlation, one-way ANOVA, and F-distribution were used to analyse the data.

Construction of the questionnaire

The questionnaire as detailed in the Appendix comprised three parts. Questions in parts I and II were partly adapted from the Professional Accountancy Survey (Gavin *et al.*, 1991). Part I contained questions regarding personal profiles, which were used as independent variables in subsequent data analysis. Part II contains questions aimed at eliciting the surveyors' perceptions toward ethics and identifying their decision-making approaches under a case-free situation. Part III was the case studies section, which had two situational ethical dilemmas specific to the surveying profession. Different questioning approaches served the purpose of testing the consistency of the informa-

tion collected, which indirectly tested the reliability of the data and research method. Questions were asked based on the cases. Attitudes and possible actions were sought in subsequent questions in order to dig out the norm of QS professional conduct, ethical concepts and decision making focus from different angles. The two situational cases in part III were selected from the HKEDC (1997) and modified to suit the daily practices of QSSs.

Sampling method and data collection

Self-administered questionnaires were the most expedient way to gather information from representatives of the relevant groups. The snowball sampling method was used, i.e. the questionnaires were passed on to quantity surveying practitioners by the distributor, and the quantity surveyors in turn were asked to pass them on and on to relevant acquaintances and companies. A systematic and unbiased sample was formulated where the sample size became larger and larger. The questionnaire successfully reached about 7% of the overall QS population in all spectrums, while about 80% of the returned questionnaires were usable and reliable. Table 1 contains the size of the population and the number of responses received. In addition to the 'membership' for surveyors, respondents are classified by 'gender', 'age', 'experience', 'education level', 'organization type' and 'management level' as shown in Table 2. This classification was based upon the seven pieces of personal information sought in part I of the questionnaire. Seven reference groups for analysis were formed accordingly.

Methods of data analysis

Part I of the questionnaire consisted of seven questions associated with seven pieces of personal information. The information was classified into seven reference groups. Each reference group contained at least two subgroups or variables, e.g. female versus male. Both Spearman's and Pearson's correlation analyses were used to confirm the existence of relationships between variables. A significance level of 0.05 was used to determine a significant difference.

Questions, 2.1, 2.2, 2.3 in part II, consisted of ordinal data. Likert's scale denoting some form of graduation was used, from 'strongly agree' to 'strongly disagree'. One-way ANOVA was used to find out if there were any statistically significant differences among seven reference groups: in other words, whether the respondents' attitudes from the seven reference groups could be compared equally.

Questions 3.1–3.7 in part III were based on two cases. The respondents were situated in two ethical

Table 1 An analysis of responses^a

Membership class	No. of members	% Members	No. of respondents	% responding
Fellow	126	6.66	10	7.9
Associate	825	43.63	50	6.1
Student B	930	49.18	60	6.5
Student A	10	0.53	5	50 (rejected)
Total	1891	100	125	6.6

^a The responses from category Student A are rejected to avoid dominating effects.

Table 2 Interdependence between personal attributes^{a,b}

	Membership	Gender	Age	Education level	Organisation type	Experience	Management
Membership	N/A	0.224	(0.557) *	(0.465) *	0.354	(0.536) *	0.632
	N/A	0.207	(0.651) *	(0.445) *	0.429	(0.573) *	0.605
Gender	0.224	N/A	(0.116) *	0.023 *	(0.064) *	(0.112) *	(0.185) *
	0.207	N/A	(0.128) *	(0.010) *	(0.060) *	(0.116) *	(0.164) *
Age	(0.557) *	(0.116) *	N/A	0.421	(0.451) *	0.809	(0.400) *
	(0.651) *	(0.128) *	N/A	0.389	(0.471) *	0.879	(0.398) *
Education level	(0.465) *	0.023 *	0.421	N/A	(0.357) *	0.301	(0.253) *
	(0.445) *	(0.010) *	0.389	N/A	(0.343) *	0.294	(0.194) *
Organisation type	0.354	(0.064) *	(0.451) *	(0.357) *	N/A	(0.267) *	0.067
	0.429	(0.060) *	(0.471) *	(0.343) *	N/A	(0.306) *	0.079
Experience	(0.536) *	(0.112) *	0.809	0.301	(0.267) *	N/A	(0.497) *
	(0.573) *	(0.116) *	0.879	0.294	(0.306) *	N/A	(0.493) *
Management	0.632	(0.185) *	(0.400) *	(0.253) *	0.067	(0.497) *	N/A
	0.605	(0.164) *	(0.398) *	(0.194) *	0.079	(0.493) *	N/A

Notes:

^a Two correlation coefficients are generated for each pair of personal attributes, the upper representing Spearman's coefficient and the lower of which represents the Pearson's coefficient.

^b The coefficient with * means it is statistically significant at 0.05 significance level.

dilemmas, in which they were puzzled over what ought and ought not to be done. This mechanism automatically contrasted the differences of thinking between the theories and practices of professionals. In addition, it identified inherent inconsistency in responses. The same statistical analyses were performed in part III as for part II, so as to facilitate comparison of the results from the two different parts of the questionnaire.

Results and discussion

Personal information was collected through the part I questions and the results are presented by use of Spearman's and Pearson's coefficients as shown in Table 2. Two correlation coefficients are generated for each pair of personal attributes, the upper of which represents Spearman's coefficient and the lower of which represents Pearson's coefficient. Correlation is used as a measure of the degree and direction of linear association between two variables that are normally distributed. Since the variables are measured by rank-

ings, so that they are not normally distributed, then a measure of rank correlation is needed. The surveyors of the reference groups 'age', 'education level' and 'organization type' did not statistically correlate with each other in 'experience' and 'management level'. In other words, differences among subgroups under 'age' do not depend on their 'education level' and 'organization type' and vice versa. The similarity among subgroups under 'experience' and 'management level' can be explained in the same way.

The results collected from questions in part II and III are discussed in the sequence of research objectives as described previously.

Determining perceptions of ethical standards by professional surveyors

The survey first sought to gauge professional QSs' perceptions on whether ethical standards have been declining over the last ten years on a scale of 1 to 4 representing 'greatly' to 'not at all'. The average score for all respondents across the seven reference groups

Table 3 Mean scores and rankings for part II questions^{a,b}

Question	Membership			Gender		Age					Education Level									
	FHKIS	AHKIS	Student B	Male	Female	25	35	45	55	Non-degree	Bachelor	Master	Doctor	Others						
2.1 Decline in ethical standards	3.00	2.76	2.75	2.83	2.50	2.84	2.46	3.57	2.50	2.17	2.89	2.68	3.33	2.00						
2.2(a) Egoism	2.86	13	2.00	4	1.93	4	2.03	4	2.06	6	1.98	3	1.95	3	2.44	8	2.67	13	1.67	1
2.2(b) Duty	2.71	12	2.37	9	1.79	2	2.17	8	1.83	3	2.04	5	2.15	7	1.75	5	3.50	6	2.11	4
2.2(c) Justice	1.29	1	1.78	1	1.70	1	1.74	1	1.56	2	1.70	1	1.89	2	1.25	1	1.50	1	1.89	1
2.2(d) Utilitarian-ism	2.57	11	2.49	11	2.17	6	2.34	10	2.33	12	2.27	9	2.37	10	2.25	13	3.25	10	2.00	9
2.2(e) Egoism	2.00	7	1.88	2	2.04	5	1.97	2	1.94	4	1.96	2	2.00	6	1.50	3	2.75	2	2.11	2
2.2(f) Duty	2.43	9	1.90	3	2.40	10	2.01	3	2.00	5	2.02	4	1.88	1	1.88	7	3.00	4	1.78	4
2.2(g) NORM	2.43	9	2.39	10	2.54	13	2.46	11	2.50	13	2.56	12	2.37	10	1.75	5	3.25	11	2.56	11
2.2(h) Categorical imperative	1.71	5	2.73	13	2.44	11	2.57	12	2.28	11	2.65	13	2.54	12	1.63	4	2.25	13	2.56	13
2.2(i) Utilitarian-ism	2.14	8	2.07	5	2.20	7	2.14	6	2.11	7	2.13	7	2.15	7	2.00	10	2.50	7	2.22	7
2.2(j) Right	1.43	2	2.23	8	2.26	8	2.17	8	2.22	10	2.41	10	1.89	2	2.00	10	1.50	9	2.11	10
2.2(k) Justice	1.43	2	2.12	6	1.91	3	2.08	5	1.50	1	2.09	6	1.96	4	1.38	2	1.50	2	1.89	6
2.2(l) Categorical imperative	1.86	6	2.66	12	2.46	12	2.58	13	2.17	9	2.53	11	2.67	13	1.88	7	2.25	12	2.56	12
2.2(m) NORM	1.57	4	2.12	6	2.26	8	2.16	7	2.11	7	2.20	8	2.19	9	2.13	12	1.25	8	2.22	8
2.3(a) Self	3.86	6	3.05	2	3.14	2	3.22	2	2.83	1	3.34	2	2.83	2	2.63	1	3.75	2	1.89	4
2.3(b) Employer	2.00	1	2.49	1	2.51	1	2.37	1	2.89	2	2.57	1	2.28	1	2.75	2	1.75	1	2.78	1
2.3(c) Client	2.71	3	3.40	3	3.59	4	3.38	3	3.72	3	3.48	4	3.38	3	3.75	3	2.75	3	4.11	2
2.3(d) Superior	3.14	4	3.77	4	3.47	3	3.46	4	4.11	4	3.38	3	3.90	4	4.38	4	2.50	4	3.89	3
2.3(e) Colleagues	3.29	5	4.79	6	4.69	5	4.57	6	4.94	6	4.78	5	4.66	6	4.88	6	2.00	6	4.00	6
2.3(f) Family	4.29	7	5.42	7	5.20	7	5.25	7	5.17	7	5.53	7	5.26	7	4.38	4	3.50	7	4.00	7
2.3(g) General public	2.29	2	4.42	5	4.83	6	4.43	5	4.61	5	4.90	6	4.32	5	4.88	6	1.25	5	5.67	5

Table 3 Continued

Question	Experience					Management				Organization type			
	<3	3 to 8	8 to 15	15 to 20	>20	Top	Middle	Junior	Academics	Public client	Private client	Consultant	Main contractor
2.1 Decline in ethical standards	2.94	2.75	2.41	3.38	2.67	2.50	2.80	2.75	3.25	2.47	3.29	2.67	2.80
2.2(a) Egoism	1.79	2	2.00	5	2.00	9	3.17	13	2.50	7	2.15	8	1.89
2.2(b) Duty	1.95	4	2.13	6	2.00	5	1.80	6	3.00	12	2.21	9	1.96
2.2(c) Justice	1.58	1	1.78	1	1.85	2	1.20	1	1.50	1	1.69	1	1.73
2.2(d) Utilitarian-ism	2.05	5	2.45	10	2.20	9	2.20	13	3.00	11	2.50	7	2.40
2.2(e) Egoism	2.11	7	1.86	2	2.00	5	1.40	3	2.67	7	2.00	2	2.06
2.2(f) Duty	2.05	5	2.00	3	1.79	1	2.00	9	2.67	7	2.00	2	2.00
2.2(g) NORM	2.58	12	2.48	11	2.45	12	1.60	5	2.83	10	2.50	7	2.48
2.2(h) Categorical imperative	2.39	11	2.80	13	2.32	11	1.20	1	2.50	6	2.00	2	2.41
2.2(i) Utilitarian-ism	2.16	8	2.11	5	2.10	8	1.80	6	2.67	7	2.50	7	2.06
2.2(j) Right	2.21	10	2.42	9	1.85	2	1.80	6	1.83	4	3.00	12	2.13
2.2(k) Justice	1.89	3	2.16	7	1.85	2	1.40	3	1.67	2	2.00	2	1.98
2.2(l) Categorical imperative	2.58	12	2.52	12	2.60	13	2.00	9	2.17	5	2.50	7	2.60
2.2(m) NORM	2.16	8	2.16	7	2.30	10	2.00	9	1.67	2	2.00	2	2.13
2.3(a) Self	3.45	3	3.33	3	2.79	1	2.50	2	2.83	2	2.50	3	3.18
2.3(b) Employer	2.30	1	2.52	1	2.84	2	2.00	1	2.00	1	1.50	1	2.34
2.3(c) Client	3.60	4	3.22	2	3.74	3	3.75	4	3.33	6	1.50	1	3.44
2.3(d) Superior	3.40	2	3.39	4	4.53	5	3.13	3	3.17	5	3.50	5	3.42
2.3(e) Colleagues	4.90	5	4.74	6	4.79	7	4.39	5	2.83	2	4.00	6	4.52
2.3(f) Family	5.55	7	5.54	7	4.53	5	5.38	7	3.83	7	3.00	4	5.50
2.3(g) General public	5.05	6	4.43	5	4.32	4	4.63	6	3.00	4	4.50	7	4.38

^a The numbers in *italic* font correspond to the rankings of the mean scores on their left-hand side among the ethical schools of thought/surrounding constituencies.

^b The overall mean scores and rankings are shown on the last two columns.

was 2.77 (Table 3). The reference group with the lowest score is those surveyors with no cognate survey training (with the score 2.00), while older surveyors have the highest score (3.57). They opined that ethical standards have not declined over the last ten years. Working experience is also a factor. Surveyors with 15–20 years of experience perceived the declining ethical level to be ‘very slightly’ (3.38). The survey indicated that education is also influential: the higher the person’s education level, the more positive his perception (3.33). Furthermore, those respondents who were senior members of professional institutes tended to perceive the changing level of ethics as ‘very slight’ (3.00), whereas the younger age group, junior members, and surveyors with 8–15 years’ experience, scored 2.46, 2.75 and 2.41, respectively, exhibiting higher levels of ethical sensitivity and tending to believe in a ‘moderate’ decline in ethical standards.

The above findings are further confirmed by the ANOVA results, as shown in Table 4. For the reference groups (age, education level, organization type), the F-statistics are significant. The $F_{.05}$ -statistic for reference groups (age, education level, organization type) = 4.803, 2.996 and 3.057, so that there is a cause to suspect that the null hypothesis is false. Besides, the significance level is less than 0.05, thus the null hypothesis is rejected. A 5% significance level is widely adopted and accepted in social science research (Billingsley and Huntsberger, 1996). In fact, in this case the sample result will have only a 5% chance or less of occurring if the hypothesis is true, and thus the result is significantly different from the hypothesis. None of the seven reference groups exhibit consistent trends of variation among subgroups. For the reference groups (membership, experience, management), the null hypothesis is retained. There is no significant difference in attitudes towards ethical standards.

Generally speaking, the researchers observe there are divergences in perception towards ethical standards among quantity surveyors. The more senior surveyors hold a positive view towards the ethical standard, and believe the ethical standards remained the same in the past ten years. Surveyors with more experience and a higher level of education have a similar view. However, the younger surveyors hold a different view. They think the ethical standards cannot be maintained. The existence of this dispersion of views among surveyors towards ethical standards should not be neglected. Are there any communication problems or any gaps between the senior and young surveyors? Indeed, in the past two decades there were considerable numbers of charges about the ethical conduct of surveyors. These events inevitably influenced the perception and thinking of younger and junior surveyors. Do the older age, senior management and experienced surveyors

have better tolerance towards ethical standards than those young and junior surveyors? Or, as Velasquez (1982) says, “are there any differences in application of the understanding of what is good and right to that assortment of institutions, technologies, transactions, activities . . .” and pursuits to the quantity surveying profession? It is unfair to the practitioners if the researchers offer opinion and answers which are sheer intuition. The answers to this interesting phenomenon of divergent views are important and established only by further research.

Establishing an overview of QSSs’ ethical concepts and theories

Questions 2.2 and 2.3 aimed to study the respondents’ views on ethical concepts under a case-free situation. The ethical theories and concepts discussed in the sections of background study are (1) egoism, (2) duty, (3) justice, (4) utilitarianism, (5) NORM, (6) categorical imperative, and (7) rights. The aggregate analysis results to the questions are summarized in Tables 3 and 4. As a whole, respondents believed in ethical theories, namely justice, egoism and duty, whereas categorical imperative, NORM and utilitarianism were the less popular ethical concepts and theories. This reveals that equitable distribution of benefits and burdens, self-interest, and obligations are predominant ethical concepts and theories that quantity surveyors hold when facing ethical dilemmas.

From the analysis results shown in the tables, the $F_{.05}$ -statistics of reference groups (experience, management) are somewhat larger or smaller than 1.00. Sampling fluctuations were expected. The null hypothesis is retained. It appears that respondents from the above reference groups had no significant different ranking towards the ethical concepts.

The ANOVA analysis results of subgroups among reference groups (memberships age and education level) reveal differences in the prevalence of egoism, duties, justice, categorical imperative, rights and NORM when tackling ethical dilemmas. The $F_{.05}$ -statistic is significant, displaying a level that is much larger than 1.00. The null hypothesis is rejected and the differences among subgroups should not be attributed to chance. This indicates that respondents among the above reference groups had significant variance in ranking towards the ethical concepts.

Female and male QSSs were found to have similar ethical concepts and theories. Gender does not appear to have a significant effect on their ethical concepts. The reference group (organization type) tended to perceive the ethical concepts of duty and utilitarianism similarly, but perceived rights differently. The finding is contrary to Carol Gilligan’s argument that the moral

Table 4 One-way analysis of variance—part II questions^a

Question	Membership		Gender		Age		Educational level		Organization type		Experience		Management	
	F-Statistic	Significance	F-Statistic	Significance	F-Statistic	Significance	F-Statistic	Significance	F-Statistic	Significance	F-Statistic	Significance	F-Statistic	Significance
2.1 Decline in ethical standards	0.328	0.722	2.502	0.117	4.803	0.004 *	2.996	0.023 *	3.057	0.021 *	0.170	0.844	0.138	0.872
2.2(a) Egoism	5.112	0.008 *	0.021	0.886	6.373	0.001 *	2.487	0.049 *	0.902	0.466	1.854	0.163	2.657	0.076
2.2(b) Duty	8.505	0.000 *	2.412	0.124	4.950	0.003 *	1.506	0.207	0.388	0.817	2.321	0.104	2.324	0.104
2.2(c) Justice	1.760	0.178	1.179	0.280	2.247	0.088	2.122	0.085	0.465	0.761	0.157	0.855	0.535	0.588
2.2(d) Utilitarianism	1.973	0.145	0.002	0.967	1.906	0.134	1.274	0.286	1.097	0.363	0.300	0.742	0.813	0.447
2.2(e) Egoism	0.439	0.646	0.018	0.893	2.161	0.098	0.209	0.933	0.794	0.532	0.668	0.515	0.769	0.467
2.2(f) Duty	2.012	0.410	0.006	0.940	3.639	0.016 *	2.475	0.050 *	0.389	0.816	0.013	0.987	0.042	0.959
2.2(g) NORM	0.448	0.640	0.039	0.844	4.773	0.004 *	1.962	0.107	2.463	0.051	0.014	0.986	0.020	0.980
2.2(h) Categorical imperative	4.609	0.012 *	1.615	0.207	3.663	0.016 *	0.489	0.744	1.504	0.208	1.094	0.339	1.103	0.337
2.2(i) Utilitarianism	0.280	0.756	0.028	0.866	0.392	0.759	0.344	0.847	0.310	0.871	0.633	0.533	0.639	0.530
2.2(j) Right	3.510	0.034 *	0.053	0.819	4.047	0.010 *	3.519	0.010 *	3.473	0.011 *	1.155	0.320	1.031	0.361
2.2(k) Justice	3.273	0.042 *	10.678	0.002 *	3.200	0.027 *	0.850	0.497	1.128	0.348	0.016	0.985	0.021	0.980
2.2(l) Categorical imperative	2.786	0.067	3.395	0.069	1.913	0.133	1.772	0.141	0.929	0.451	0.724	0.487	0.305	0.738
2.2(m) NORM	3.597	0.031 *	0.068	0.795	2.821	0.043 *	1.363	0.253	1.666	0.165	0.126	0.882	0.094	0.910
2.3(a) Self	0.589	0.557	0.666	0.417	0.883	0.453	2.784	0.031 *	1.148	0.339	0.131	0.877	0.154	0.857
2.3(b) Employer	0.362	0.697	1.789	0.184	0.644	0.588	0.206	0.935	1.565	0.190	0.907	0.407	1.295	0.279
2.3(c) Client	0.913	0.405	0.631	0.429	0.352	0.788	0.914	0.459	0.983	0.421	1.494	0.230	1.688	0.191
2.3(d) Superior	0.676	0.511	2.529	0.115	2.032	0.115	1.037	0.392	2.358	0.059	0.501	0.607	1.44	0.323
2.3(e) Colleagues	3.743	0.027 *	1.061	0.305	5.693	0.001 *	1.913	0.115	1.935	0.111	0.645	0.527	1.324	0.271
2.3(f) Family	0.937	0.395	0.023	0.881	1.880	0.138	3.259	0.015 *	2.260	0.068	1.864	0.161	2.322	0.104
2.3(g) General public	3.333	0.040 *	0.076	0.784	3.354	0.022 *	1.106	0.358	1.574	0.188	0.058	0.944	0.003	0.997

^a * means statistically significant at 0.05 significance level.

sense of ordinary women is generally different from that of ordinary men (Singer, 1994). Maybe Gilligan is right, as professional is a special class of group of people in society. They are grouped together as they share similar interests, values and perception.

Interestingly, we observe that those respondents who had senior membership in professional institutes were older in age, highly educated and more experienced and were more willing to give up self-interest when dealing with ethical dilemmas. Egoism in their eyes was always ranked the lowest. Moreover, these respondents very often attached degrees of importance to ethical concepts different from others. Since this group of respondents constituted only about 10% of the sample, the overall ranking (Table 3) and ANOVA results (Table 4) were largely dominated by the opinions of the rest. However, the reasons why these groups of Qs depict so different a perception pattern deserves to and should be studied in further detail with other suitable statistical analysis methodologies.

To sum up, different reference groups had different degrees of similarities in their perceptions of ethical concepts or schools of thought (Table 3). Nevertheless, the analysis results altogether show respondents generally favouring the ethical theory of 'justice', whereas 'categorical imperative' was less popular. It seems that all subgroups advocated fair process and equitable distribution of benefits and burdens among stakeholders. The ranking of the other five ethical schools of thought fluctuate from subgroup to subgroup, and no consistent ranking can be formed. This finding, in some roundabout way, supports the idea of complementarity of consequential theories and deontological theories as the effort of many researchers (Cavanagh et al., 1981, 1995; Brady, 1985, 1987; Pastin, 1986; Cody and Lynn, 1992). As discussed in the section on ethical decision-making models, many contemporary researchers strive to incorporate several ethical concepts into one decision-making model which can satisfy the divergent beliefs. Contemporary arguments focus on revolving around the competition as well as complementarity between 'rule ethics'.

Determining important constituents affecting the ethical decision making

Question 2.3 attempted to reveal the extent of the importance of various factors, including self, employer, client, superior, colleagues, family, and also the general public surrounding quantity surveyors in a case-free situation. Respondents were asked to rank the importance among seven constituents or choices when resolving ethical dilemmas during their practice. In Table 3, overall scores indicate that respondents gave the highest rank to the employer, while the general

public was the lowest. In descending order, the factors were ranked as (1) employer, (2) self, (3) client, (4) superior, (5) family, (6) colleagues, (7) general public.

Although responses among reference groups were not significantly different (Table 3), one or two differences were found within all of the seven reference groups (Table 4). The difference was detected when responses were studied on the basis of reference groups (ANOVA analysis). However, these differences were not clear enough to identify differences between specific subgroups.

Subgroups of the reference group 'membership' showed significantly different perceptions towards the general public. Senior members ranked the general public as the second most important factor while associate and junior members ranked it fifth and sixth, respectively. Respondents who had senior membership in professional institutes deemed the interest of the general public to be an influential factor in the ethical decision-making process.

Questions 3.4 and 3.7 in part III had the same intention as question 2.3 in part II. These questions studied the extent of the importance of various factors under two given situations. Respondents ranked 'self' the highest in question 3.4 (hereinafter termed case 1), and the general public the lowest (Table 5). In descending order, the factors were ranked as (1) self, (2) employer, (3) client, (4) superior, (5) family, (6) colleague, (7) general public. Responses to question 3.7 (hereinafter termed case 2) were similar to case 1.

Although questions regarding the factors influencing decision-making were asked through different approaches and conditions (i.e. case-free, situational), the overall response to questions 2.3, 3.4 and 3.7 were, generally speaking, quite consistent. No significant variance in attitude was detected. In the decision-making process, the Qs usually considered self-interests, employer and client more important than the other factors.

These results show that respondents' ethical concepts affect their decision-making process. In the previous section respondents as a whole were shown to believe in the concepts of justice, egoism, and duty. Their beliefs are in line with their thinking and decision-making where they consider employer, self and client to be more important than other factors. Quantity surveying is labelled as a profession not only because of the value of its existence, social status, confidence and trusts from clients and the public in general but also because of its professional ethics. According to a survey carried out by ICAC regarding the public's expectation of the services of professions and businesses, the general public has a higher expectation professions. Surveyor's attitudes do not seem to be in line with the expectations of the general public.

Referring to the definition of professional ethics given by HKEDC (1996), professional ethics is already tied up with more practical concepts and expectations from the public, like competence, responsibility, and willingness to serve the public (Carey, 1968). It is worth noting that there may exist a wide gap in perception between professional QSs and the general public on the services and interests of QSs.

To reveal the attitudes and actions taken towards ethical dilemmas

It seems that the ethical dilemma in case 1, Clint: ghost workers, indeed puzzles the attitude of the respondents. Their overall reaction was quite conservative in the sense that they tended to clarify the whole picture and calculate the consequences prior to taking any action (Table 5, questions 3.1, 3.2 and 3.3). However, once the picture was clear, the QSs tended to take the most straightforward action by terminating the services of the personnel concerned. Similar responses are noted from case 2, Jonathan: taking up outside work, (questions 3.5 and 3.6), in which the majority of respondents preferred to protect self-interest.

Significant differences in subgroup reactions are found in case 1 under reference group (age, education level, organization type and experience), while subgroup reactions to case 2 do not show substantial differences.

Research has often demonstrated differences in ethical responses between men and women, with women being found to demonstrate less tolerance of unethical actions (McDonald, 1995). However, this is not the case in Hong Kong for the quantity surveying profession. In the research, where male and female QSs showed similar ethical attitudes and actions, gender did not appear to have a significant effect on ethical response.

Again, those respondents who had senior membership in the HKIS, were older in age, highly educated and more experienced tended to react differently to the cases from the rest of the respondents. They preferred to follow formal rules and principles when dealing with ethical dilemmas. This is consistent with their responses to question 2.5, in which they placed emphasis on 'right'.

The overall similar responses to case 1 and case 2 imply that QSs hold some common rules or baselines when dealing with ethical dilemmas. However, these two cases depict only two of the numerous possible ethical dilemmas faced by QSs that cannot, at this stage, be generalized over other problematic situations. As the first step towards a study of professional conduct and ethics, the case study method can enhance consistency in allowing inferences to be made from the survey

results. This in turn can partly deal with the issue of methodology reliability in behavioural research.

Conclusion

Due to the increasing number of ethical problems in the business world and construction industry, the research team initiated a study of surveyors' ethical behaviour and professional conduct. The research findings show that there are differences in the perception of ethical standards within professional quantity surveyors. Those respondents who are senior members of professional bodies (RICS and HKIS), older in age, well educated and more experienced hold a positive view of ethical standards over the last ten years and believe that they have not declined, while the attitudes of younger ages (25–35), less educated, and junior QSs are relatively negative. The wide dispersion of responses illustrates that a communication problem and gap exists among professional QSs. Professional norms are learned through active involvement and experience of progressing from junior to senior ranks, and thus there may be a process of ethical concept development. The profession faces a problem if ethical standards are diverging between senior and junior QS practitioners, or if seniors fail to realize and understand the concerns of juniors. This is worthy of exploration in future research.

Professional QSs were asked to give their perceptions of thirteen statements regarding ethical concepts and theories, which are discussed in the background study section. As a generalization, respondents attached importance to ethical theories such as justice, egoism and duty, and favoured NORM, utilitarianism and categorical imperative less. According to the survey results, there is significant variance among subgroups of the seven reference groups. This is a substantial problem of a lack of consensus towards ethical concepts and theories among professionals. Given this situation, how is the professional institution to formulate a generally acceptable code of conduct and rigid standards for its members?

The research findings illustrate that when QSs face ethical dilemmas, QSs in different reference groups have different important constituents influencing their decision-making. The survey results show that respondents who are older, have more work experience and hold senior membership believe the interests of general public to be more important in decision-making. However, the attitudes of young QSs are very different. The overall responses tend to rank employer, self and client as more important, while the interest of general public is in a relatively low position.

Reference to the recent business ethics survey, commissioned by the Independent Commission against

Table 5 Mean scores and rankings for part III questions^{a,b}

Question	Membership				Gender		Age				Education Level																	
	FHKIS	AHKIS	Student B		Male	Female	25	35	45	55	Non-degree	Bachelor	Master	Doctor	Others													
3.1	1.67	1.93	2.04	1.97	1.94		2.02	2.00	1.65	1.67	2.11	2.00	2.06	1.33	1.25													
3.2	1.67	1.88	1.96	1.92	1.83		2.00	1.79	1.75	1.67	2.00	1.93	1.88	1.33	1.75													
3.3	1.75	2.39	2.26	2.31	2.22		2.40	2.13	2.13	2.00	2.44	2.31	2.17	2.00	2.25													
3.4(a) Colleague/ Sub-ordinate	2.83	8	2.19	7	2.09	5	2.18	6	2.21	7	1.91	4	2.57	8	2.00	3	2.50	7	2.03	5	2.56	8	2.33	8	2.00	3		
3.4(b) Colleague/ Sub-ordinate	2.67	7	1.90	3	1.91	2	1.97	3	1.89	3	1.81	2	2.14	6	1.88	3	3.00	6	1.75	1	1.88	2	2.17	4	2.00	7	2.50	7
3.4(c) Superior	2.17	5	1.90	3	1.96	3	1.93	2	2.00	4	1.89	3	2.04	5	1.88	3	2.33		2.00	3	1.90	3	2.17	4	1.67	4	1.75	1
3.4(d) Self	1.83	4	1.76	1	1.89	1	1.89	1	1.56	1	1.80	1	1.96	3	1.38	1	2.33	4	1.88	2	0.83	1	1.94	3	1.00	1	1.75	7
3.4(e) Self/ Employer/ Client	2.20	6	2.17	6	2.24	6	2.22	7	2.16	6	2.30	6	1.96	3	2.00	6	4.00	8	2.25	5	2.18	6	2.41	7	1.67	4	2.00	3
3.4(f) Employer	1.50	2	1.88	2	2.00	4	1.99	4	1.63	2	2.07	5	1.72	1	1.63	2	1.67	2	2.00	3	2.00	4	1.67	2	1.33	2	2.00	3
3.4(g) Client	1.33	1	1.98	5	2.29	7	2.08	5	2.11	5	2.31	7	1.82	2	1.88	3	1.00	1	2.25	5	2.25	7	1.56	1	1.67	4	2.00	3
3.4(h) General public	1.50	2	2.55	8	2.53	8	2.45	8	2.58	8	2.63	8	2.39	7	2.00	6	1.67	2	2.63	8	2.58	8	2.22	6	1.33	2	2.50	7
3.5	2.67	2.32	2.16	2.34	1.94		2.09	2.52	2.25	3.33	3.00	2.12	2.62	2.00	1.75													
3.6	4.57	4.29	3.59	3.96	3.89		3.70	1.46	4.63	4.50	3.63	3.98	3.92	4.67	3.50													
3.7(a) Self	3.57	7	2.60	6	2.27	5	2.58	7	2.26	4	2.30	5	2.69	6	2.88	7	3.50	6	2.50	7	2.40	6	2.65	5	4.00	7	2.50	6
3.7(b) Family/ Friends	2.86	5	2.00	3	2.20	4	2.12	4	2.32	5	2.06	3	2.27	4	2.25	3	2.75	5	2.25	4	1.98	4	2.53	4	3.67	5	2.00	2
3.7(c) Employer/ Client	2.14	3	2.08	4	2.07	3	2.05	3	2.16	3	2.06	3	2.11	3	2.38	4	1.50	3	2.11	2	1.97	3	2.06	3	3.67	5	2.50	6
3.7(d) Employer/ Client	1.14	1	1.15	1	1.76	1	1.41	1	1.58	1	1.56	1	1.38	1	1.13	1	1.00	1	1.50	1	1.47	1	1.24	1	1.33	1	2.00	2
3.7(e) Self/ Colleague	3.29	6	2.63	7	2.33	6	2.56	6	2.42	6	2.44	7	2.54	5	2.63	6	3.50	6	2.13	3	2.47	7	2.88	7	3.33	4	2.25	4
3.7(f) Self	1.57	2	1.65	2	1.76	1	1.67	2	1.79	2	1.65	2	1.88	2	1.75	2	1.00	1	2.38	5	1.68	2	1.35	2	2.33	2	1.50	1
3.7(g) Employer	2.29	4	2.46	5	2.43	7	2.42	5	2.50	7	2.32	6	2.72	7	2.50	5	2.00	4	2.38	5	2.36	5	2.69	6	3.00	3	2.25	4

Table 5 *Continued*^{a,b}

Question	Experience					Management				Organization type			
	<3	3 to 8	8 to 15	15 to 20	<20	Top	Middle	Junior	Academics	Public client	Private client	Consultant	Main contractor
3.1	2.05	1.90	2.06	2.25	1.40	1.50	2.00	1.96	1.73	1.95	2.17	1.91	2.44
3.2	2.05	1.93	1.79	1.88	1.60	1.50	1.87	1.96	1.73	1.76	2.00	1.98	2.00
3.3	2.33	2.43	2.00	2.00	2.33	2.50	2.31	2.27	1.89	2.26	2.50	2.37	2.17
3.4(a) Colleague/ Sub-ordinate	1.89	2	2.78	8	2.00	7	2.50	5	2.31	7	2.27	7	2.36
3.4(b) Colleague/ Sub-ordinate	1.89	2	1.84	2	2.11	3	2.00	5	2.60	6	1.50	2	2.02
3.4(c) Superior	1.89	2	1.81	1	2.21	5	2.00	5	2.20	5	1.50	2	2.02
3.4(d) Self	1.74	1	1.84	2	2.11	3	1.14	2	2.00	4	1.00	1	1.77
3.4(e) Self/ Employer/ Client	1.95	5	2.30	7	2.42	7	1.00	1	3.50	8	3.00	7	2.16
3.4(f) Employer	2.26	6	1.95	4	1.68	1	1.50	3	1.80	2	3.00	7	1.76
3.4(g) Client	2.32	7	2.23	6	1.84	2	1.71	4	1.40	1	1.50	2	1.93
3.4(h) General public	2.42	8	2.65	8	2.32	6	2.43	8	1.80	2	2.50	5	2.42
3.5	2.00	2.19	2.75	1.60	3.00	3.00	2.40	2.11	1.91	2.68	1.83	2.26	2.00
3.6	3.84	3.67	4.27	4.80	4.67	3.00	4.24	3.71	4.00	4.47	4.47	3.87	3.33
3.7(a) Self	2.00	3	2.44	6	2.88	7	2.57	6	3.50	7	2.50	4	2.82
3.7(b) Family/ Friends	2.05	4	2.05	3	2.29	4	2.29	3	2.83	5	2.00	2	2.16
3.7(c) Employer/ Client	2.05	4	2.14	4	1.88	2	2.38	4	1.83	3	2.50	4	1.98
3.7(d) Employer/ Client	1.63	1	1.56	1	1.24	1	1.14	1	1.00	1	2.00	2	1.18
3.7(e) Self/ Colleague	2.26	6	2.47	7	2.59	6	2.56	5	3.33	6	3.50	7	2.75
3.7(f) Self	1.63	1	1.65	2	2.18	3	1.57	2	1.00	1	1.50	1	1.68
3.7(g) Employer	2.50	7	2.28	5	2.50	5	3.43	7	2.00	4	2.50	4	2.40

^a The numbers in *italic* font correspond to the rankings of the mean scores on their left-hand side among the ethical schools of thought/surrounding constituencies.

^b The overall mean scores and rankings are shown in the last two columns.

Table 6 One-way analysis of variance—part III questions^a

Question	Membership		Gender		Age		Educational level		Organization type		Experience		Management	
	F-Statistic	Significance	F-Statistic	Significance	F-Statistic	Significance	F-Statistic	Significance	F-Statistic	Significance	F-Statistic	Significance	F-Statistic	Significance
3.1	2.133	0.121	0.056	0.813	2.309	0.082	5.221	0.001 *	4.205	0.004 *	3.611	0.009 *	1.187	0.310
3.2	2.238	0.113	0.990	0.322	4.001	0.010 *	2.997	0.023 *	2.844	0.029 *	2.854	0.028 *	2.339	0.102
3.3	0.948	0.392	0.129	0.721	0.623	0.602	0.199	0.938	0.631	0.641	0.841	0.503	0.074	0.928
3.4(a) Colleague/ Sub-ordinate	2.497	0.088	0.030	0.863	8.398	0.000 *	2.089	0.089	1.651	0.169	6.285	0.000 *	0.509	0.603
3.4(b) Colleague/ Sub-ordinate	4.203	0.018 *	0.223	0.638	4.915	0.003 *	1.654	0.168	0.050	0.995	2.025	0.098	0.846	0.433
3.4(c) Superior	0.455	0.636	0.171	0.680	0.738	0.532	0.881	0.479	0.304	0.875	1.588	0.185	0.998	0.373
3.4(d) Self	0.413	0.663	3.724	0.057	2.264	0.087	1.311	0.272	0.935	0.447	3.029	0.022 *	2.077	0.131
3.4(e) Self/Employer/ Client	0.060	0.941	0.053	0.819	2.943	0.037 *	0.413	0.799	0.721	0.580	5.442	0.001 *	0.634	0.533
3.4(f) Employer	1.151	0.321	3.174	0.078	1.821	0.149	1.080	0.371	2.561	0.044 *	2.044	0.095	3.387	0.038 *
3.4(g) Client	3.836	0.025 *	0.011	0.917	3.985	0.010 *	2.489	0.049 *	0.512	0.727	2.096	0.088	2.015	0.139
3.4(h) General public	3.642	0.030 *	0.301	0.585	2.049	0.113	1.739	0.149	1.853	0.126	1.189	0.321	0.126	0.882
3.5	0.478	0.621	1.351	0.248	1.305	0.278	1.352	0.258	0.925	0.454	1.560	0.173	0.865	0.425
3.6	3.750	0.027 *	0.031	0.860	1.768	0.159	0.442	0.778	1.177	0.327	1.671	0.164	2.259	0.111
3.7(a) Self	8.624	0.000 *	2.018	0.159	4.158	0.008 *	2.828	0.029 *	0.697	0.596	5.441	0.001 *	6.136	0.003 *
3.7(b) Family/Friends	3.570	0.032 *	0.838	0.362	1.187	0.319	4.919	0.001 *	1.046	0.389	1.501	0.209	0.044	0.957
3.7(c) Employer/ Client	0.026	0.975	0.231	0.632	0.998	0.398	3.589	0.009 *	0.732	0.573	0.664	0.618	0.753	0.474
3.7(d) Employer/ Client	9.349	0.000 *	0.793	0.376	1.497	0.221	0.965	0.043 *	0.847	0.499	1.833	0.130	6.337	0.003 *
3.7(e) Self/Colleague	7.374	0.001 *	0.629	0.430	3.210	0.027 *	3.477	0.011 *	1.102	0.361	3.683	0.008 *	8.420	0.000 *
3.7(f) Self	0.285	0.753	0.343	0.559	1.683	0.177	3.177	0.017 *	1.677	0.163	3.195	0.017 *	0.086	0.918
3.7(g) Employer	0.143	0.867	0.157	0.693	1.915	0.133	0.996	0.414	2.966	0.024 *	4.187	0.004 *	0.094	0.910

^a * means statistically significant at 0.05 significance level.

Corruption (ICAC) reveals that the ethical conduct of a company or profession affects consumers' decisions to buy goods and services from it. It is quite clear that the general public has greater expectations of the professions than the non-professions, and believes that they can uphold the consumers' interests (HKEDC, 1996). As Mr Ian Oddy, Chairman of the RICS Standards and Practice Committee, claims, a profession is largely a creature of public demand. Professions remain in existence because of continuing recourse by the public to them (Chalkley, 1990). Mr Oddy believes that professions can survive only if the public has confidence in them. The fact that professions can command public confidence rests on two essential elements, professional knowledge and ethical conduct. If this is the case, then the surveyors' attitudes do not seem to be in line with the expectations of the general public.

Judging by the attitudes of and actions taken by the respondents, QS practitioners tend to be cautious and conservative when facing an ethical dilemma. Further research is needed to find out if such caution is typical of the Hong Kong ethos or specific to the profession.

In controlling professional ethics, one common measure is the code of conduct. Unfortunately, many surveying professionals do not find the RICS Rules of Conduct helpful when faced with complicated ethical issues. Some criticize the rules, which are not able to provide concrete guidance in those instances when professional duties conflict with other interests (Callahan and Corey, 1988; Kultgen, 1988).

Further research is recommended to investigate whether it would be feasible to incorporate the concepts of professional ethics as discussed in the literature into a code of ethics in the form of 'ethical decision-making models'. Bayles (1989) contends that professional ethics is not simply an application of narrow ethical theories but involves political, social and legal philosophy as well. Professional ethics can be properly analysed only against a set of social values and a conception of the general role of professions in society. All decision-making models discussed above in the background section were developed mainly in the business field. Although there are some similarities in the constituents of decision-making there are significant differences in the nature and conditions of work in business in general and in the construction sector in particular. A decision-making model for the construction/surveying professions would therefore, in our view, be useful. Such a model may have a role to play in maintaining ethical standards and in guiding younger surveyors towards the higher standards of ethics at work.

Reference

- Bayles, M. D. (1989) *Professional Ethics*, 2nd Edn, Belmont Publishing, CA.
- Bentham, J. (1789) *An Introduction to the Principles of Morals and Legislation*, reprinted 1948 by Hafner, New York.
- Billingsley, W. and Huntsberger, C. (1996) *Statistics: For Management and Economics*, Prentice Hall, Englewood Cliffs, NJ.
- Brady, F. N. (1985) A Janus-headed model of ethical theory: looking two ways at business/society issues. *Academy of Management Review*, **10**(3), 568–576.
- Brady, F. N. (1987) Rules for making exceptions to rules. *Academy of Management Review*, **12**.
- Brady, F. N. and Dunn, C. P. (1995) Business meta-ethics: an analysis of two theories. *Business Ethics Quarterly*, **5**(3), 385–398.
- Carey, J. L. and Doherty, W. O. (1968) *Ethical Standards of the Accounting Profession*, American Institute of Certified Public Accountants, New York.
- Cavanagh, G. F., Moberg, D. J. and Velasquez, M. (1981) The ethics of organizational politics. *Journal of Management Review*, **6**(3), 363–374.
- Cavanagh, G. F., Moberg, D. J. and Velasquez, M. (1995) Making business ethics practical. *Business Ethics Quarterly*, **5**(4), 399–418.
- Cederblom, J.B. and Dougherty (1991) *Critical Reasoning: Understanding and Criticising Arguments and Theories*, 3rd Edn, Wadsworth, Belmont, CA.
- Chalkley, R. (1990) *Professional Conduct: A Handbook for Chartered Surveyors*, Surveyors Holdings Ltd., London.
- Cody, W. J. M. and Lynn, R. R. (1992) *Honest Government: An Ethics Guide for Public Service*, Praeger, Westport, CT.
- Callahan, J. and Corey, J. (1988) *Ethical Issues in Professional Life*, Oxford University Press.
- Eells, R. (1962) *The Government of Corporations*, Free Press, New York.
- Gavin, Cooper, Leung, Chau and Yau, (1991) *Professional Ethics: A Survey of Accountants in Hong Kong*, Department of Accountancy, Hong Kong Polytechnic.
- Gilligan, C. (1982) *In a Different Voice*, Harvard University Press, Cambridge, MA.
- Hart, H. L. A. (1955) Are there any natural rights?. *Philosophical Review*, **64**, 175–191.
- HKEDC (1996) *Ethics for Professionals (Architecture, Engineering & Surveying): A Resource Portfolio for Hong Kong Universities*, Hong Kong Ethics Development Centre, Hong Kong.
- HKEDC (1997) *Ethics in Management: A Practical Guide for Professional Accountants*, Hong Kong.
- HKIS (1998) Hong Kong Institute of Surveyors, <http://www.hkis.org.hk> (transl.)
- Kant, I. (1785) *Foundations of the Metaphysic of Morals*, reprinted 1959, Beck, L. W., (transl.) Bobbs-Merrill, New York.
- Kant, I. (1797) *The Metaphysics of Morals*, reprinted, McGregor, M. (transl.) Cambridge University Press.

- Kultgen, J. H. (1988) *Ethics and professionalism*, University of Pennsylvania Press, Philadelphia, PA.
- McDonald G.M (1995) Common myths about business ethics: perspectives from Hong Kong. *Business Ethics*. Vol 4. No 2. April 1995. pg 96-106.
- Masserly, J. G. (1994) *An Introduction to Ethical Theories*, University Press of America, New York.
- Mill, J. S. (1863) *Utilitarianism*, reprinted 1957, Bobbs-Merrill, Indianapolis, IN.
- Miller, A. R. (1971) *The Assault on Privacy*, University of Michigan Press, Ann Arbor, MI.
- Pastin, M. (1986) *The Hard Problems of Management: Gaining the Ethics Edge*, Jossey-Bass, San Francisco, CA.
- Popkin, R. H. and Stroll A. (1993) *Philosophy Made Simple*, Bentam Doubleday Dell, New York.
- RICS (1999) CSM Report, September, Royal Institution of Chartered Surveyors, p. 48.
- Singer, P. (1994) *Ethics*, Oxford University Press.
- Singer, M. S. (1998) Paradigms linked: a normative-empirical dialogue about business ethics, *Business Ethics Quarterly*, 8(3), 481-496.
- Velasquez, M. G. (1982) *Business Ethics: Concepts and Cases*, Prentice-Hall, Englewood Cliffs, N.J.
- Velasquez, M. G. (1996) Business ethics, the social sciences, and moral philosophy, *Social Justice Research*, 9, 97-107.
- Walzer, M. (1967) The obligation to disobey, *Ethics*, 77(3), 163-175.

Appendix. Questionnaire for the study of surveyors' ethical behaviour (questions only)

Part I: Personal profile

- 1.1 What is the type of your membership in the Hong Kong Institute of Surveyors?
- 1.2 What is your sex?
- 1.3 What is your age?
- 1.4 What is your highest level of formal education?
- 1.5 How would you classify your organization in the construction industry?
- 1.6 How long have you practised as surveying professional?
- 1.7 How could your position be best described in the management structure of your organization?

Part II: Opinions about surveyors' professional ethics

- 2.1 In general, do you perceive that ethical standards of the surveying profession have been declining over the past ten years?
- 2.2 Please rank the importance of the following considerations when resolving ethical dilemmas during your practice:
 - (a) What was best either for myself or for my company?

- (b) That as a manager my first responsibility and ultimate duty are to my company and its shareholders.
 - (c) That it is important that justice is seen to be done.
 - (d) That sacrifices are often needed in order to ensure the greatest good for the greatest number.
 - (e) Effects that the action might have on my personal reputation and career.
 - (f) That ultimately one should ask whether actions are consistent with organizational goals and do what is expected of me.
 - (g) Whether one would want to live in a world in which a suggested rule prevailed.
 - (h) Do unto others as you would have them do unto you.
 - (i) As long as the consequences of the decision affect the majority in a positive way.
 - (j) Whether the action or a consequence of the action will violate an individual's personal right.
 - (k) What would be the most equitable outcome for all concerned?
 - (l) Whether I would want my decision outcome to become a universal rule, which then is applied to everyone in similar circumstances.
 - (m) Whether a proposed moral rule could encapsulate the essential elements of the dilemma and could be accepted by all parties concerned.
 - (n) Others, please specify.
- 2.3 How would you rank the importance of the interest of the following parties when resolving ethical dilemmas during your practice?
- (a) Yourself, (b) Your employer/company, (c) Your clients, (d) Your superior, (e) Your colleagues, (f) Your family, (g) General public

Part III: Case study

Case 1. Clint: ghost workers

Clint was Construction Engineer at a public transport network site and was a shrewd as well as conscientious professional who spent most of his time mingling with foremen and construction workers. Nevertheless he was a popular figure as he could earn the respect of his colleagues.

Bobby, a site foreman, was working with Clint on a new project. Bobby had an assistant, Chui, who had been his right hand man for many years. One day, Chui fell ill and Bobby took over the routine check of books and accounts. He suddenly saw the names of two men whom he did not recall seeing on the site the day before marked into the

attendance book. He thought it was a mere error of entry but to make sure, he summoned the two men to come and see him.

When the two guys showed up, Bobby was amazed to see that they were totally unabashed. They admitted outright that they had been absent the day before and that their chums had clocked in their attendance cards for them. They were even brazen enough to put forth a number of points to justify what they had done.

According to them, attendance at work did not necessarily mean that the progress would be faster. The guys needed to time out and rest in order to throw themselves with renewed vigour into their tasks after their leave days and they could work hard to compensate for the day lost. The productivity would be higher. And they had never let Bobby down, had they? This had been a system drawn up by the men and everybody knew about it, seeing it as an incentive to their work or even a bonus. Bobby was aghast.

To make matters worse, the phone rang at that time. It was Clint. He wanted to check out with Bobby about the expenses and asked him to file the site accounting report. Bobby was at a loss as to what to do. He wondered how much Chui was involved in this. If Chui were in the know all along, then he himself would be an incompetent fool not to realize that this was going on under his nose. On the other hand, he did not wish to antagonize his men. What should he do?

Should he report to Clint and blow the whistle? Or should he stand by his men, including Chui? Would it reflect badly on him either way?

- 3.1 What would you do just after listening to the two ghost workers' story?
- 3.2 What would you do if you suspected Chui was involved?
- 3.3 What would you do if you knew Clint was on the phone?
- 3.4 How would you rank the importance of the following considerations, if you were Bobby, when deciding what to do?

Case 2. Jonathan: taking up outside work

Jonathan was a surveyor employed by the Galaxy Construction Ltd. (a subcontractor). He had worked with the company for three years and was a very task-oriented young man who never hesitated to work hard for his goals.

One day the surveying manager asked him to lend a hand with the final account for a Site ABC because there was substantial disagreement between the one given by the main contractor and the one given by

Jonathan's colleague, Wesley. To make matters worse, Wesley was going to leave the company next week. Since he was now responsible for four sites, Jonathan told his manager he was extremely busy at that time and could not handle the extra work. The task was then offered to an outside freelance company named Leo & John Company.

It so happened that Leo, the proprietor of Leo & John Co., was an old friend of Jonathan who rang Jonathan and told him of the offer. Actually, Leo and his staff had their hands full at that time but would not like to turn down Galaxy when they made the offer. What Leo wanted was to maintain a satisfactory relationship with Galaxy all through, so that in future when their jobs again had to be contracted out, they would come to Leo & John again. Leo asked if Jonathan would consider lending a hand in the final account in his own spare time. The contract money could be split, with Jonathan taking a share for the part that he did and Leo taking the share his men worked on.

Jonathan thought hard. He could certainly sacrifice a few nights' sleep to conclude the final account. He knew what the requirements were. Should he say yes to Leo? He understood full well what Leo's intention was regarding keeping Galaxy as a client. Would he be doing Leo a favour? Or would it be a disservice instead? Leo should learn not to bite off more than he could chew.

On the other hand, what should Jonathan be considering in making his decision? Should he let his boss know that he could work on at least part of the project, though that would mean eating into his own time and even hours of sleep? Would he be justified to expect extra pay for the extra work, whether Leo pays it directly to him or indirectly?

- 3.5 What would you do when the QS manager asked you to take up the final account of Site ABC given that you were now responsible for four sites?
- 3.6 What would you do if Leo approached you?
- 3.7 How would you rank the importance of the following considerations, if you were Jonathan, when deciding what to do?

Psychological implications

Implications based on answers to part II, question 2.2.

(a) What was best either for myself or for my company.

Ethical egoism: self-interest is the deciding factor of your action!

(b) That as a manager my first responsibility and ultimate duty are to my company and its shareholders.

Duties: you will fulfil obligations irrespective of the consequences of your action!

(c) That it is important that justice is seen to be done.

Justice: you focus on fair processes and an equitable distribution of the benefits and burdens imposed by an action or policy of all primary stakeholders.

(d) that sacrifices are often needed in order to ensure the greatest good for the greatest number.

Utilitarianism: you prefer to select the alternative that produces greatest good for greatest number of stakeholders

(e) Effects that the action might have on my personal reputation and career.

Ethical egoism: refer (a).

(f) That ultimately one should ask whether actions are consistent with organizational goals and do what is expected of me.

Duties: refer (b).

(g) Whether one would want to live in a world in which a suggested rule prevailed.

NORM theory: you define an action as right if all people might reasonably think of it as being accepted by anyone who looked at the matter in an informal and omnipartial way as a moral rule.

(h) Do unto others as you would have them do unto you.

Categorical imperative: you like to behave in the way you would have others do unto you. As long as the consequences of the decision affect the majority in a positive way.

Utilitarianism: refer to (d).

(j) Whether the action, or a consequence of the action will violate an individual's personal right.

Rights: rules or principles are used to guide your decisions and you believe rights would provide such a set of rules for your use.

(k) What would be the most equitable outcome for all concerned.

Justice: refer to (c).

(l) Whether I would want my decision outcome to become a universal rule, which then is applied to everyone in similar circumstances.

Categorical imperative: refer to (h)

(m) Whether a proposed moral rule could encapsulate the essential elements of the dilemma and could be accepted by all parties concerned.

NORM theory: refer to (g).