



Ethical Issues among Professionals in the Private Construction Sector: A Contractor's Perspective

Zulkifli Ibrahim^{1*}, Noraini Hamzah², Muhamad Azry Khoiry²

¹ Civil Engineering Programme, Faculty of Engineering & Built Environment, Universiti Kebangsaan Malaysia, MALAYSIA.

² Department of Civil Engineering, Faculty of Engineering & Built Environment, Universiti Kebangsaan Malaysia, MALAYSIA.

*Corresponding Author (Tel: +6016 2266 376, Email: zulkifli120988@siswa.ukm.edu.my).

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Abstract

The construction sector plays a vital role in ensuring that a country can compete healthily with each other in order to achieve a developed country in the future. Addressing the ethical issues among professionals is essential in ensuring successful project completion besides meeting quality requirements, completing on time, and being carried out within the budget. Questionnaire data from 203 respondents involving the contractor's professional from the Malaysian private construction sector was collected. The finding of this study indicated that the ethical issues among professionals focusing on the contractor perspective for the private sector have a direct and negative impact on the construction project. The study's outcomes confirmed the significance of corruption, negligence, unfair conduct, favoritism, and fraud were the most critical unethical among the professional that needs to be paid attention to and optimized. This study will provide helpful information to all stakeholders in dealing with ethical issues, especially among professionals involved in each construction phase. The preventive measure must be taken and considered accordingly in resolving these ethical issues in ensuring success in the construction project management and determining the success of project completion within the cost, quality, and time expected.

Disciplinary: Construction Management (Ethics, Organizational Behavior).

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1 Introduction

According to the statistic released by the International Monetary Fund World Economic Outlook 2020, Malaysia was ranked 40th out of the list of top 50 economic countries in 2020

compared to the 37th position in 2019 [1]. Although government statistics show that the construction industry in Malaysia supports the economy with less than five percent of GDP, the industry is still growing due to extensive links with all other economic sectors besides playing its role in ensuring attain as a developed country in the future [2]. Various transformations were introduced and implemented in Vision 2020 for Malaysia to achieve fully developed country status by 2020 [3]. However, the vision cannot be achieved due to some circumstances, especially in the Malaysian economic growth based on the statistic provided by DOSM. The problems may be due to construction project management problems related to costs, quality and time, and ethical problems.

In some developing countries, the abandoned project has an enormous effect on economic growth besides the stakeholders associated with the project [4]. The increase in the number of abandoned projects from day to day is one of the adverse effects of this problem. According to Malaysia's Ministry of Housing and Local Government (MHLG), the number of abandoned projects until 2019 is 200 projects. This number is expected to increase until 2020 [5]. Therefore, this matter is very worrying, especially the clients who spend high financial resources to ensure the management of a construction project can run better and smoother towards the contractor, who at the same time plays a vital role in ensuring the success of a construction project. Based on the previous researchers agreed that the success of a project could be measured through three main factors, namely time, cost and quality or also known as the Total Quality Management (TQM) Triangle [3, 6, 7, 8, 9, 10, 11, 12, 14]. Moreover, the success of a project can be evidenced where three project parameters have been balanced with the human activity system requirements that include time, cost and quality management [16, 17]. However, [13, 15] stated that a fourth factor is essential in construction project management to determine the success of a project, namely the ethical factor.

Ethical issues are often discussed and debated among professionals in the construction sector in every country. Based on reference [18], there are expected ethical issues in all project phases, such as planning, design, tendering, project implementation, supervision, and handover. Reference [12] stated that a successful project could only be achieved if professionals such as engineers, architects, surveyors and other individuals involved with construction projects have a solid basic knowledge of design and engineering management apart from having a fundamental knowledge of business procedures, human behavior, ethical and economics. If the ethical issue is still unresolved, it will lead to another problem that will significantly affect the completion of the construction project.

The works [19, 20] mentioned that the frequency of ethical issues among professionals leads to a high knock-on effect on the construction sector, especially in every country. Thus, these problems need to be appropriately and wisely tackled in every country when the countries want to achieve status as a developed country in the future. Sometimes, there is a conflict of interest between every professional involved in the project, such as clients, consultants, and contractors

[21]. This paper aims to examine and overview the ethical situation in the construction sector, especially the Malaysian private construction sector. Therefore, this study focuses on analyzing ethical issues and recommending preventive measures from a contractor's perspective. The twelve ethical issues contributed by the previous researcher from different countries will provide a clear and deeper understanding of these ethical issues among professionals.

2 Literature Review

2.1 Contractor as a Critical Player in the Construction Sector

A contractor can be defined as a person or organization with a contract with a client and is responsible for constructing a project [22]. Several key players are involved in the same construction project, such as the architects, consultants, contractors, and sub-contractors. All these key players are working together to meet the needs and requirements of the client. Reference [23] mentioned different types or categories of contractors involved in construction projects, such as the general contractor, subcontractors, and the specialized contractor.

Every contractor has a vital role in achieving the project planning within specific costs, time frames and quality standards while planning, organizing, coordinating, and achieving all of this with supervision from the main contractor. With the existence of different contractors, there will inevitably be various ethical issues that will arise among these professionals. Therefore, preventive measures should be taken to reduce and optimize the ethical issues among professionals.

2.2 Professional Ethics in the Construction Sector

The definition of professional ethics recognized by the working party is giving one's best to ensure that client's interests have appropriate care. However, the broader public interest is also recognized and respected [24]. Every professional needs to show professionalism, morals and social responsibility in their daily work toward the clients, but this relationship should not be abused [16]. According to reference [25], the researcher describes that professional ethics is treating others with the same degree of honesty that they would like to be treated.

In addition, the works [20, 26] mentioned that professional ethics could be differentiated from general ethics to the extent that professional ethics must be taken into account on the relationship between practicing professionals with customers, the profession, the community in general, employer, employee and the specialized technical details of the profession. Ethical leadership is essential, and it impacts creating an ethical environment that translates into proactive customer service performance and employees' affective commitment [27]. Thus, a good ethical environment will give benefit the smoothness of construction project management.

2.3 Ethical Issues in the Construction Sector

Ethical issues among professionals in construction can happen and exist in every phase of a construction project, such as planning, designing, tendering, project implementation, operation and maintenance [20, 28]. These problems face specifically by individuals or groups of people in which the values of professional ethics are not applied, and it has harmed the completion of the

construction process. According to reference [29], many methods need to strengthen and measure the actual events to enable a fair assessment of the ethical issues that happen in every country.

The various ethical issues among professionals based on the review from previous literature can be divided into twelve categories as summarized in Table 1. From this table, the questionnaire will be developed using each ethical issue and its forms of influence to collect feedback from the respondents and further understand which ethical issues are most influential for the private construction sector in Malaysia from the contractor's perspective.

Table 1: The summary from previous literature

No	Ethical Issue	Previous Literature
1	Collusive tendering	[15], [25], [30], [31], [32], [33]
2	Confidentiality and propriety breach	[25]
3	Conflict of interest	[15], [25], [31], [33]
4	Corruption	[15], [25], [28], [29], [31], [32], [33], [34], [35], [36], [37]
5	Dishonesty	[15], [25], [28], [31], [32], [35], [36]
6	Favoritism	[15], [35], [36]
7	Fraud	[15], [25], [28], [31], [32], [33]
8	Negligence	[15], [25], [28], [31], [32], [33]
9	Overriding of the audit process over the contracting process	[35], [36]
10	Strict rules	[35], [36]
11	Unfair conduct	[25], [28], [31], [33], [35], [36]
12	Violation of environmental ethics	[25]

3 Method

This study investigates the most influence and significance of ethical issues among professionals in the private construction project involving the contractors. For the data collection, a quantitative method by experience-based feedback was used. A questionnaire was developed by incorporating the ethical issues from the previous study with the adaption of items from each ethical issue, see Table 1. This questionnaire method is used to obtain information more accurately and correctly besides saving on cost and time to obtain data from a predetermined sample size.

Total 230 sets of the questionnaire were distributed to the respondents among the professionals working for the contractor in the Malaysian private construction project in Selangor. The state has most of the abandoned projects based on the statistic by MHLG. The sample size from abandoned project statistics was compared to match the sample size recommended by Krejcie and Morgan to ensure the reliability of the questionnaire [38]. The questions are designed straightforwardly and outlined as simply as possible to understand and answer the actual question given easily. The questionnaire is divided into three sections which are Section A (Data demographic), Section B (Ethical issues) and Section C (Preventive measure). Each section used a different method of answering where an answer was provided for Section A and Section C. In contrast, Section B, a five-point Likert scale from "1=very infrequently" to "very frequent", was used to guide the respondents to provide feedback. The data collected were sorted out and analyzed using Statistical Product and Service Solutions Version 26.0 software.

Quantitative descriptive analysis was used to present the result of this study by looking at frequencies, mean and SD of the ethical issue to determine the most influential and significant

ethical issue among professionals working for the contractors in the private construction sector. [31] uses the same method to investigate the ethical issue; similarly, [33] also uses the same approach to investigate the ethical issue in the Pakistani construction industry. A reliability test was performed based on Cronbach Alpha (CA) on the pilot study. Reliability in research refers to the ability of a study to obtain similar values when the exact measurements are repeated [39]. Reference [40] stated that the closer the value of CA to the value of 1.0, the higher the reliability of the stability of the question. For this study, each section has CA values of 0.7, meaning that reliability is good and the respondent understood the question.

4 Result and Discussion

From 230 questionnaires distributed, only 203 response data were received and collected. The data collected were then statistically analyzed using SPSS software.

4.1 Data Demographic

Table 2 shows the demographic profile of the respondents collected through the questionnaire survey from 203 valid respondents.

Table 2: Data Demographics of the respondents

Respondents' Profile	Frequency	Percentage
Age		
< 20 years old	3	1.5%
21-30 years old	120	59.1%
31-40 years old	71	35.0%
> 41 years old	9	4.4%
Role		
General Manager	1	0.5%
Project Manager	43	21.2%
Site Engineer	81	39.9%
Assistant Engineer	51	25.1%
Surveyor	11	5.4%
Others	16	7.9%
Experience		
< 5 years	102	50.2%
5 – 10 years	83	40.9%
11 – 20 years	15	7.4%
> 20 years	3	1.5%
Educational background		
Doctor of Philosophy	1	0.5%
Master Degree	14	6.9%
Bachelor Degree	127	62.6%
Diploma	49	24.1%
Others	12	5.9%

Most respondents aged 21 years old and above indicate in the sample that moderately aged people would have more extraordinary in-depth views and experiences regarding the construction project. Among all the respondents, most respondents were site engineers, assistant engineers, and project managers, with percentage values of 39.9%, 25.1%, and 21.2%, respectively.

In addition to these, respondents 50.2% have less than five years of experience in construction projects, while 49.8% have more than five years of experience. Although these values are almost the same, the percentage itself indicates that most respondents are more experienced.

Therefore, the responses toward the questionnaire survey would have greater depth and real scenarios based on their vast experience in this field. Finally, about 70.0% of respondents assumed they have a more outstanding qualification because they have a bachelor's degree and above in the qualification. This statistic shows that most of the respondents were competent enough to answer the actual question given in the survey.

4.2 Ethical issues in the Construction Project

About 82.3% of the respondents mentioned that their organization has a code of ethics. 4.4% and 13.3% of respondents, respectively, stated that their organization does not have a code of ethics and is unsure whether they have a code of ethics. Looking at these statistics, most contractors involved in this construction project have their code of ethics in controlling ethical problems among employees, especially professionals. The survey results show that 70.4% of respondents practice and follow their code of ethics.

Although most respondents follow the established code of ethics, unethical behavior still occurs, especially among professionals. The mean values and SDs were obtained from the feedback received through a descriptive analysis conducted using SPSS. From these values, the mean scale is classified as shown in Table 3. Means are used to determine the average of each respondent's feedback.

Table 3: Interpretation of “frequency” scale (Adapted from [31]).

Options	Mean
None	$0.00 \leq \text{Mean score} < 0.75$
Sometimes	$0.75 \leq \text{Mean score} < 1.50$
Often	$1.50 \leq \text{Mean score} < 2.25$
Very often	$2.25 \leq \text{Mean score} < 3.00$

From Tables 3 and 4, one category of the ethical issue falls into the "Very Often". In addition, Table 4 also illustrates nine ethical issues, which their mean score within the options of "Often". Meanwhile, two categories of unethical among professionals in the private construction sector were in the range of "Sometimes". The mean and SD were tabulated as shown in Table 4. Besides that, Table 4 also shows the ranking of ethical issues among professionals in the private construction sector. The ethical issues were tabulated based on the ranking from most frequent to the least frequent and will be discussed accordingly by referring to tabulated values.

From Table 4, corruption was the most frequent ethical issue among professionals, with the value of the mean and SD 2.40 and 1.040, respectively. Corruption occurs in the form of cash, gifts, favors and travels. [31] revealed a 10 percent loss of the total global construction was due to corruption in the construction industry. In addition, the negligence under rank numbers two with the mean value of 2.21 and SD of 0.909. The negligence occurred in the forms such as late payments, short payments, poor quality and inadequate information, poor supervision, lack of safety ethics, insufficient documentation and unfair treatment during tender or final account negotiations. From [41], 206 cases report negligence in any aspect in the Malaysian construction

sector until December 2020. This statistic shows that this ethical issue should be considered to ensure that these ethical problems can be avoided and solved. Furthermore, with the value of mean 0.895 and SD 0.895, unfair conduct was ranked number 3 for the most frequent ethical issues among professionals in the private construction sector. Unfair conduct always occurred in the forms of performing biased tendering evaluation systems, re-tendering, bid shopping, and not paying and deducting fees without proper justification.

Table 4: Ranking of ethical issues

Ethical issues	Mean	SD	Rank
Corruption	2.40	1.040	1
Negligence	2.21	0.909	2
Unfair conduct	2.15	0.895	3
Favoritism	2.12	0.937	4
Fraud	2.10	0.945	5
Dishonesty	2.01	0.963	6
Conflict of interest	2.01	0.968	7
Violation of environmental ethics	1.97	0.918	8
Overriding of the audit process over the contracting process	1.85	1.019	9
Collusive tendering	1.84	0.908	10
Strict rules	1.79	0.881	11
Confidentiality and propriety breach	1.70	0.865	12

Notes: Rank no. 1 = Most frequent; Rank no.12 = Least frequent

Table 4 shows that the least frequent ethical issues were the confidentiality and propriety breach issues, with the mean and SD values of 1.70 and 0.881, respectively. According to the Malaysian Anti-Corruption Commission 2021, cartel syndicates were caught involving tenders, and quotations are worth more than RM3.8 billion in Malaysia, where the syndicate operated from 2014 to 2021. Those not responsible for ensuring that their organization secures a project are committed to ethical issues such as corruption and fraud. In conclusion, the top five categories of ethical issues in private construction sectors, namely (i) Corruption; (ii) Negligence; (iii) Unfair conduct; (iv) Favoritism and (v) Fraud.

4.3 Preventive measure to increase the professional ethic

Table 5 shows the classification and the interpretation of the agreement scale for each preventive measure. From this scale, the ranking of preventive measures to increase the professional ethics in the private construction sector based on the contractor's perspective is tabulated.

Table 5: Interpretation of “agreement” scale

Options	Mean
Strongly disagree	$0.00 \leq \text{Mean score} < 0.25$
Somewhat disagree	$0.25 \leq \text{Mean score} < 0.50$
Somewhat agree	$0.50 \leq \text{Mean score} < 0.75$
Strongly agree	$0.75 \leq \text{Mean score} < 1.00$

Table 6, the awareness of professional ethics was the most preventive measure chosen by the respondent with the mean and SD values, which were 0.62 and 0.488, respectively. Professional ethics is essential because, without this awareness, a professional cannot carry out his/her

professionalism and hence cannot carry out his/ her duties properly. Therefore, good professional ethics is necessary for the construction project as it significantly influences the quality and performance each professional involves.

Table 6: Ranking of preventive measures

Preventive measure	Mean	SD	Rank
Awareness of professional ethics	0.62	0.488	1
Training and guidance	0.60	0.492	2
Setting a code of ethics	0.41	0.493	3
Leader as a role	0.39	0.489	4
Severe punishment	0.37	0.484	5

Notes: Rank no. 1 = Most choose; Rank no.5 = Least choose

In addition, the training and guidance under rank numbers two with the mean value of 0.60 and SD of 0.492. Training and guidance are essential in ensuring that every professional can train themselves to ensure that professional ethics is always practiced in their daily work and that all existing codes of ethics can be adhered to properly. Furthermore, with the value of mean 0.41 and SD 0.493, the code of ethics setting was in rank number 3 for the most preventive measure chosen by the respondent among professionals from the contractor. Based on this study, most organizations have their code of ethics. Thus, the management should ensure compliance with this code of ethics among professionals by conducting inspections regularly. Besides that, the organizations are encouraged to stress and enforce it on every person, especially their professionals. Table 6 shows that the preventive measure's last choice was severe punishment with the mean and SD values of 0.37 and 0.484, respectively. In conclusion, the top three categories of preventive measures from the contractor perspective in the private construction sector, namely (i) Awareness of professional ethics; (ii) Training and guidance; (iii) Setting a code of ethics.

5 Conclusion

The construction sector plays an essential role in ensuring that a country can compete healthily to achieve a developed country in the future. Every professional involved in the construction project must play an essential role in ensuring that their professional behaves well and with professional integrity accordingly. They should strive to play their role in achieving good quality of work because of every professional bare a great responsibility to the general public. Practicing exemplary professionalism can ensure that the management of construction projects involving cost, quality, and time set is achieved. In addition, the laws related to this problem need to be tightened further apart from the monitoring carried out by the agencies involved.

The finding of this study indicates that the ethical issue among professionals focusing on the contractor perspective for the private sector has a direct and negative impact on the construction project. Ethical issues often occur either consciously or not in the construction project. The study's outcomes confirmed the significance of corruption, negligence, unfair conduct, favoritism, and fraud was the most critical unethical among the contractor's professionals that need to be taken care of and paid attention to optimize. This study will provide helpful information to all

stakeholders in dealing with ethical issues, especially among professionals involved in each construction phase, and preliminary steps must be taken and considered accordingly.

Further studies are recommended to examine and focus on the details of ethical misconduct in each construction phase. Prevention mechanisms can be focused on short, medium and long-term measurement.

6 Availability of Data and Material

Data can be made available by contacting the corresponding author.

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Zulkifli Ibrahim is a Ph.D. student at the Civil Engineering Programme, University Kebangsaan Malaysia. His research areas are Project Management, Construction Management, Ethics and Leadership. Email: zulkifli120988@siswa.ukm.edu.my



Dr. Noraini Hamzah is a Senior Lecturer at the Department of Civil Engineering, Faculty of Engineering & Built Environment. Her research areas are in Educational Courses, Engineering Education, Innovation Management and Structural Engineering. Email: ainhamzah@ukm.edu.my



Dr. Muhamad Azry Khoiry is a Senior Lecturer at the Department of Civil Engineering, Faculty of Engineering & Built Environment. His research areas are in Construction Management, Project Management, Sustainable Construction and Sustainable Development. Email: azrykhoiry@ukm.edu.my