

# **EDUCATION OF MORAL PRINCIPLES IN FUTURE CONSTRUCTION PLAYERS**

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## **ABSTRACT**

In Malaysia, the Code of Ethics for Contractors (CIDB, 2010) is used as a guide for contractors in carrying out the construction works. The degree of moral behaviour in the building and construction industry has often been a concern and as a beginning, this article will look into the attitude and stance of Quantity Surveying students, for the reason that the program will produce significant construction players in the near future. A survey was conducted to the students prior to lectures to examine the students' attitudes to various moral-related scenarios. This article presents the results which show that there is still room for improvement in the aspect of moral behavior in construction industry.

*Keywords:* education, moral, construction

## **INTRODUCTION**

The degree of moral behaviour in the building and construction industry has often been a concern and in Malaysia, the Code of Ethics for Contractors is used as a guide for contractors in carrying out the works. It was published by CIDB Malaysia in 2010.

This article will not comment on the process or result of the code but just suffice to acknowledge that there is still room for improvement in the aspect of moral behavior in construction industry. As a beginning, this article will look into the attitude and stance of Quantity Surveying students, for the reason that the program will produce significant construction players in the near future.

Referring to a study by Heathcote and Trembath (2008) and recognising that the Royal Commission (Australia) has outlined some particular areas of concern pertaining to the behaviour of construction firms, and that the majority of undergraduate construction students will tend to climb to management position in their firms. A decision was made to incorporate some lectures on moral principles into a business and organization related subject, Professional Practice in Bachelor of Quantity Surveying course in Universiti Teknologi MARA. Eventhough the subject of moral principles is touched on in earlier Construction Law subjects in the course it was felt that a more extensive coverage to the study of moral principles later on in the course might be beneficial to the students.

Quantity Surveying students were selected among all other disciplines in construction because they will be the key players whom involve in construction from the very beginning until the very end of the construction process, as compared to engineers and architects whom will only involve in a few major stages of construction. As part of this process it was decided to survey the students prior to lectures to examine the students' attitudes to various moral-related scenarios. This article presents the results for the class of 2011.

## **BRIEF OVERVIEW OF MORAL THEORIES**

The introduction of business and organisation moral principles and the theory that support it requires rationalisation. Common issues related to business moral principles include justice and economic efficiency in relation to capitalism, social and environmental responsibility, job

discrimination, whistle blowing and civil rights to name a few, and there is growing literature on professional moral principles including ideas such as professional responsibility and codes of practice. Any discussion on moral behaviour in the profession will be seen in the context of these topics, however, a brief overview of moral behaviour theories is most useful.

Martin & Schinzinger (1983) have outlined four main streams of philosophical theories of moral principles. They are divided into:

1. Virtue Moral Principles as initially espoused by Aristotle (964-967). Aristotle believed that moral virtues (e.g. generosity) are those which favour the mean between extremes of behaviour (In generosity's case wasteful indulgent and miserliness).
2. Human Rights Ethics as initially espoused by John Locke (1632-1704). According to Locke actions which respect the rights (to life, liberty and property) of individuals are by their nature ethical.
3. Duty Moral Principles as initially espoused by Emmanuel Kant (1724-1804). According to Kant, 'right actions are those required by a list of duties such as: be honest, keep your promises, don't inflict suffering on other people, be fair, make reparation when you have been unfair, show gratitude for kindness extended by others... seek to improve one's own intelligence and character, develop one's talents, don't commit suicide' (Martin & Schinzinger, 1983, p. 36).
4. Utilitarianism Moral Principles as initially espoused by John Stuart Mill (1806-1873). Mill deemed an act to be moral if it produces the most good for the most people.

Psychological theories of moral principles look at the moral development of individuals. While Kohlberg (1971) looked at three levels of moral development:

1. Preconventional Level. Here individual's moral actions are determined by a desire to avoid punishment and to satisfy their own needs.
2. Conventional Level. At this stage an individuals' moral behaviour is determined by the standards and norms of society.
3. Postconventional Level. This is the stage where individuals start to exhibit 'moral autonomy', i.e. the ability to think clearly and critically about moral issues.

## **EDUCATING MORAL PRINCIPLES TO STUDENTS**

The question of development of a student's capability for moral autonomy is regarded by Martin & Schinzinger (1983, p. 16) to be central to the education of moral principles in 'the unifying goal should be to increase one's own moral autonomy in developing, expressing and acting on reasoned moral views'.

However, the issue remains as to whether moral behaviour is a crucial for success in the business world. Friedman (1970) discusses moral complexity in the context of the theories outlined above and offers a plain and simple solution. He states that 'there is one and only one social responsibility of business and that is to increase profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception and fraud'. This view is built on the belief that if the managers act in a way in which profits are maximised then this will be best for all concerned and further that if one focuses on profits then that will provide a focus and benchmark for efficiency. This is clearly not the case and profits alone will not guarantee a sound moral stand. For example he is prepared to suggest that it would be a good idea to provide child care center and community activities as part of the workplace but he only supports these activities if they make a profit. Basically he is saying that business should be ruthlessly selfish in the rush for profits so long as they stay within the law. This view seems to be in dispute with a more reasoned and socially responsible attitude.

It is our view that in the education of moral principles to students, a balanced view is desired. In Friedman's world the government ensures the good of society through developing appropriate laws and the manager's job is to maximise profits within these borders. This view is just too simplistic and not real. The relationships between the law, the good of the community and morality are far more complex to be interpreted and when matched up against profit maximization will build tension.

It has been proposed by Boylan and Donahue (2003) that the idea of expert moral principles is grounded in a fundamental understanding of what a profession is and what a professional does. Furthermore, there are certain qualities that define a professional and these include the need to expand a high degree of specialised knowledge; the ability to apply the special body of knowledge to the profession and to demonstrate strong self discipline and accept personal responsibility for actions and decisions. They go on to suggest that a professional is more concerned with services delivered with financial reward. This seems a more balanced view than Friedman and takes into account the vital issue of the extent to which the professional acts in the service of others or is motivated by self interest and self gain.

## **SURVEY METHODOLOGY**

The subject in which this study was conducted is called 'Building Company Performance' and it is undertaken by second year full-time and fourth year part-time students in the Bachelor of Quantity Surveying course in Universiti Teknologi MARA. 118 students were involved in the survey with 63 in the under 22 age category and 55 in the 22 and over age category. The questions asked were based on the study by Heathcote and Trembath (2008) and are given in Table 1.

It was decided to break the students into two groups, those under 22 years of age and those over 22 years. The split was based on the desire to separate the maturity of the respondents from the younger ones and at the same time ensuring that the two groups were not vastly dissimilar in size. Students were asked to respond on a five point Likert scale ranging from 'Strongly Agree' to 'Strongly Disagree'. However for the purpose of this exercise results were processed on a three point scale with 'Strongly Agree' and 'Agree' lumped together (similarly with 'Strongly Disagree' and 'Disagree').

**Table 1: Survey Questions**

i.	You have been invited to an industry golf day. The course is local, there is a small fee involved and lunch is provided. Do you attend?
ii.	You are a Lecturer at UiTM. One of your students asks you to do a paid job for him. Is it OK to do it?
iii.	A supplier invites you to attend a football game in their box. It is a public event and major test match. Is it OK to go?
iv.	A family friend has applied for a position in your firm and has asked to talk to you about the position prior to their formal interview. You are on the interview panel. Is it OK to assist them?
v.	You are tendering for a project that you don't really want to do but feel that if you don't put in a price you may not get asked to tender for other projects. Is it OK to put in an artificially high tender?
vi.	Your firm is seeking work in a foreign country and you are to be their representative there. On investigation you find that the only way to do business in that country is by giving 'kick backs' to officials. Would you be a part of this?
vii.	You are a builder doing a contract for the government. You arrange your contract price so that items of work that occur early are apportioned all of the profit in order to improve your cash flow. Is this acceptable?
viii.	You are a contract home builder operating on tight margins. You give a quote to a Client with a provisional sum item for footings. When the footings are billed you load the bill up as

	much as you can get away with in order to increase your profit on the job. Is this acceptable?
ix.	You are working on a cost-plus contract. The job is going better than much later. If you slow work on the cost-plus contract so as to finish in time for your next job the Client will still end up paying less than the budget. Is it acceptable to do this?
x.	You are desperate for work and a Superintending Officer has the ability to slow down your project approval. He hints that he needs some work done on his house. Do you offer to help him out?
xi.	A major Government Client has decided to stop giving Bills of Quantities to tenderers. You know the other tenderers and agree with them to put an allowance in your tender for the costs of each tenderer preparing quantities. The one who wins the tender would then reimburse the other tenderers for their costs in preparing their quantities. Is this acceptable?
xii.	You are an employee tradesperson on a job. There are three bags of cement left over on a cost-plus contract. You ask the foreman if it is OK to take them home. He says 'Sure' and you take them home. Is this acceptable?
xiii.	You are a researcher at a university and are offered an RM100,000 grant to research a new building technology by a company that is exploiting cheap labour in a foreign country. Is it acceptable to take their money?
xiv.	You are building a slab on ground extension to your house. You find a bottle of a now banned termites protection chemical that was used on the main part of the house. This chemical is far more effective than the one presently used. Would you use it?
xv.	You are aware that your firm is engaged in bribing government officials to get jobs. If you report this to the authorities it is more than likely that the firm will collapse and you will lose your job. You have a wife and three kids to support and have a big mortgage. Would you report your firm?
xvi.	Moral behaviour is incompatible with profit seeking. Do you agree?

Students were surveyed prior to receiving any instruction on moral behaviour although the subject was briefly touched on in the Construction Law subjects previously undertaken by the students. The students were advised not to undertake the survey, if they did not take it seriously and anonymity was assured. By and large it was felt that the students took the survey seriously. Surveys were collected at the end and then processed using an Excel spreadsheet.

## SURVEY RESULTS

### Students Under 22 Years of Age

The results for the group of students who were under 22 years of age are given in Table 2.

**Table 2: Responses for Students Under 22 Years**

No.	Agree	Uncertain	Disagree	Total	Essence of Question
1	41	11	11	63	Golf Day
2	32	19	12	63	Student Job
3	63	0	0	63	Box at Football
4	36	10	17	63	Family Friend
5	39	9	15	63	Artificially High Tender
6	14	22	27	63	Foreign Work
7	34	15	14	63	Early Profit for Cash Flow

No.	Agree	Uncertain	Disagree	Total	Essence of Question
8	15	9	39	63	Loading Provisional Sum Item
9	34	12	17	63	Slowing Cost-Plus Job
10	34	9	20	63	Work for Building Surveyor
11	15	21	27	63	Bill of Quantities
12	34	7	22	63	Bags of Cement
13	19	15	29	63	Researcher/Dubious Donor
14	14	1	48	63	Termite Chemical
15	7	15	41	63	Bribe/Lose Job
16	23	5	35	63	Moral Behaviour/Profit

The highlighted values in Table 2 indicate that the response obtained was not due to chance. This was based on the assumption that equal Yes and No responses would be indicative of a chance relationship. A 5% acceptance criterion was then used in a Chi-square test.

### Students 22 Years of Age and Above

The results for the group of students who were 22 years of age or over are given in Table 3. As for the former group the highlighted values indicate that the response obtained was not due to chance.

**Table 3: Responses for Students Greater than or equal to 22 Years**

No.	Agree	Uncertain	Disagree	Total	Essence of Question
1	49	0	6	55	Golf Day
2	28	5	22	55	Student Job
3	50	0	5	55	Box at Football
4	30	7	18	55	Family Friend
5	45	3	7	55	Artificially High Tender
6	18	4	33	55	Foreign Work
7	40	5	10	55	Early Profit for Cash Flow
8	15	0	40	55	Loading Provisional Sum Item
9	28	5	22	55	Slowing Cost-Plus Job
10	35	10	10	55	Work for Building Surveyor
11	22	0	33	55	Bill of Quantities
12	38	0	17	55	Bags of Cement
13	25	10	20	55	Researcher/Dubious Donor
14	12	5	38	55	Termite Chemical

No.	Agree	Uncertain	Disagree	Total	Essence of Question
15	10	12	33	55	Bribe/Lose Job
16	17	5	33	55	Moral Behaviour/Profit

## DISCUSSION OF RESULTS

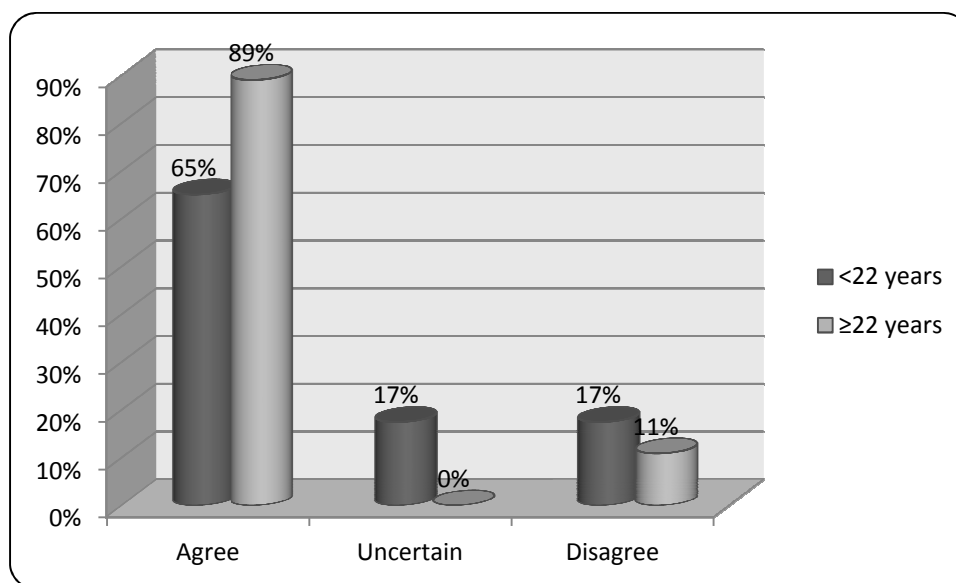
### Discussion of Responses

From the survey, significant different responses between Yes and No in one or other or both of the age groups were received in Questions No. 2, 3, 4, 5, 7, 8, 12, 14 and 15. The whole results are shown in the following graphs.

#### Question 1

*You have been invited to an industry golf day. The course is local, there is a small fee involved and lunch is provided. Do you attend?*

The majority of students in both groups answered that they will attend. There is an even split for 'uncertain' and 'no' groups in the under 22 age group. In the over 22 age group, 11% disagree while none is uncertain.



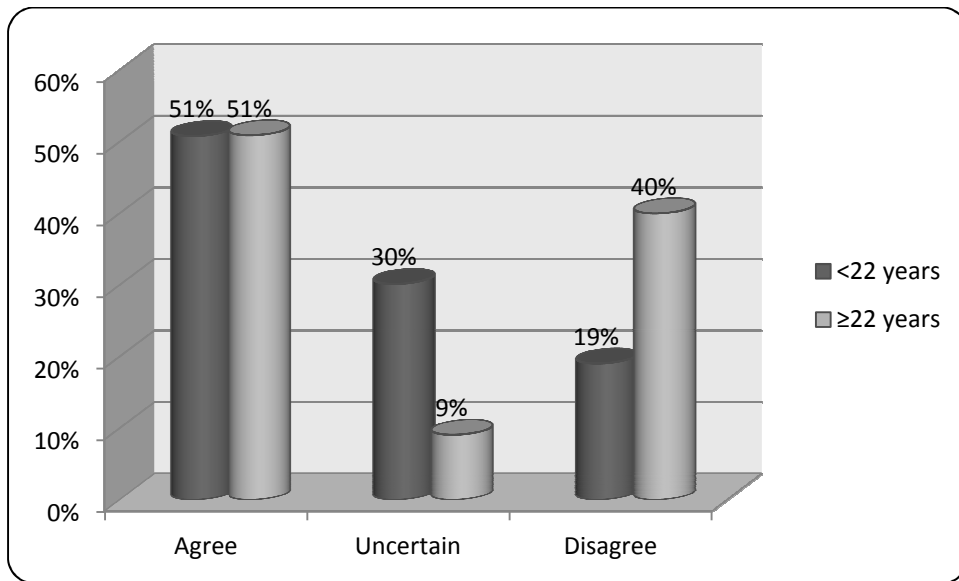
**Figure 1: Golf Day**

#### Question 2

*You are a Lecturer at UiTM. One of your students asks you to do a paid job for him. Is it OK to do it?*

For this question significantly more students answered yes in the under 22 category whereas in the over 22 category the responses were fairly evenly split. This is to be expected as one

would expect the more mature students to be a bit more cautious in such arrangements based on their life experience.

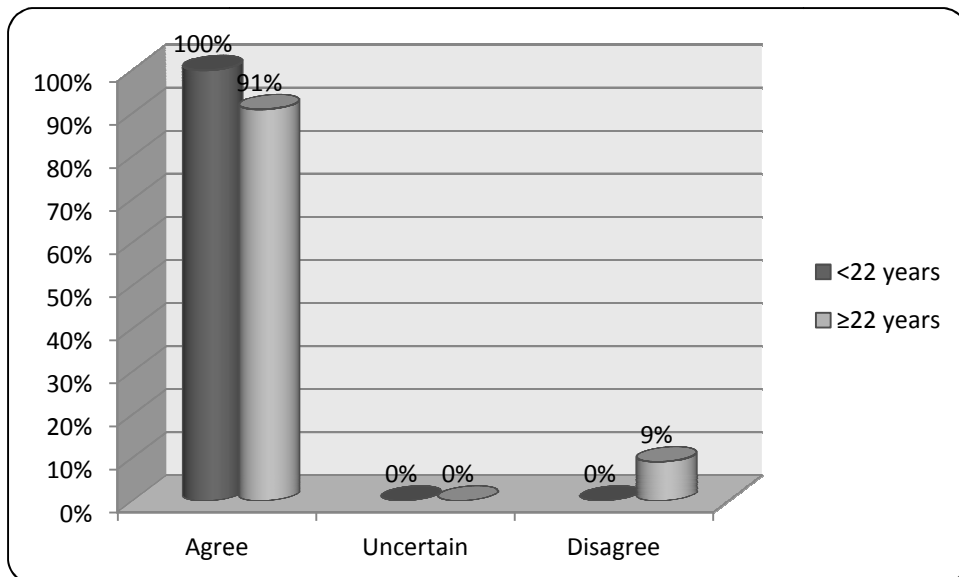


**Figure 2: Student Job**

### Question 3

*A supplier invites you to attend a football game in their box. It is a public event and major test match. Is it OK to go?*

There was almost a unanimous yes response in both age groups for this question, with no students 'uncertain'.

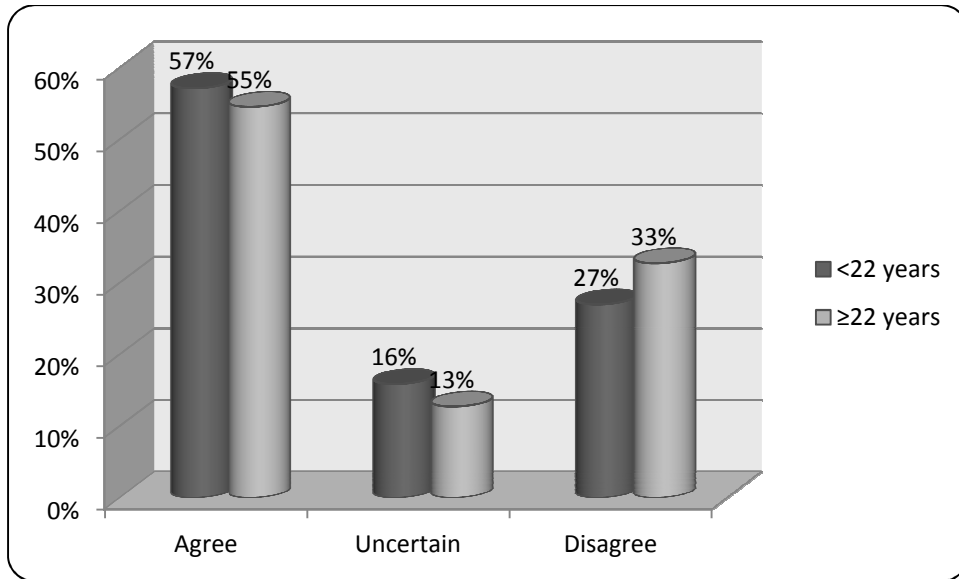


**Figure 3: Box at Football**

### Question 4

*A family friend has applied for a position in your firm and has asked to talk to you about the position prior to their formal interview. You are on the interview panel. Is it OK to assist them?*

Students under 22 responded almost 2 to 1 in favour of assisting the family friend whilst in the over 22 group, the response was not significant either way.

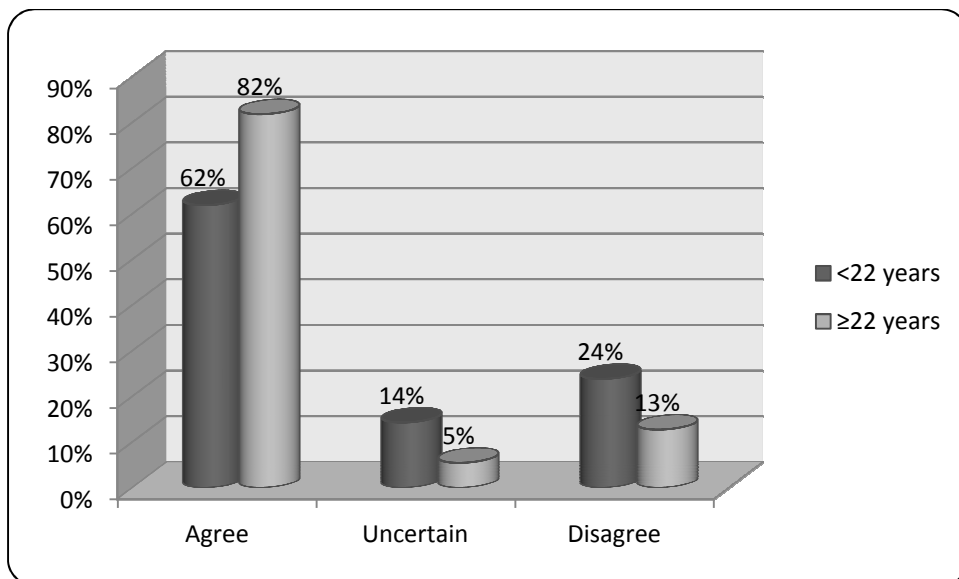


**Figure 4: Family Friend**

#### Question 5

*You are tendering for a project that you don't really want to do but feel that if you don't put in a price you may not get asked to tender for other projects. Is it OK to put in an artificially high tender?*

Both age groups were significantly in favour of putting in an artificially high tender, more so with the students over 22. This may be due to their increased exposure to current practices in the workplace.



**Figure 5: Artificially High Tender**

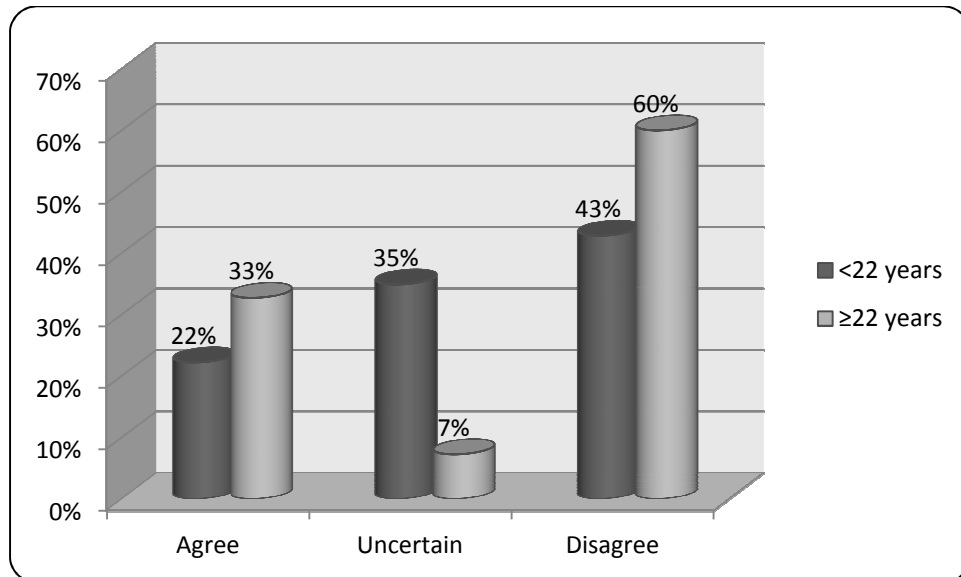
#### Question 6

*Your firm is seeking work in a foreign country and you are to be their representative*



*there. On investigation you find that the only way to do business in that country is by giving 'kick backs' to officials. Would you be a part of this?*

There is a gradual difference in under 22 age group response from agree to disagree, with 35% of uncertainty. But in the over 22 age group, most of them disagree and there is only 7% of uncertainties.

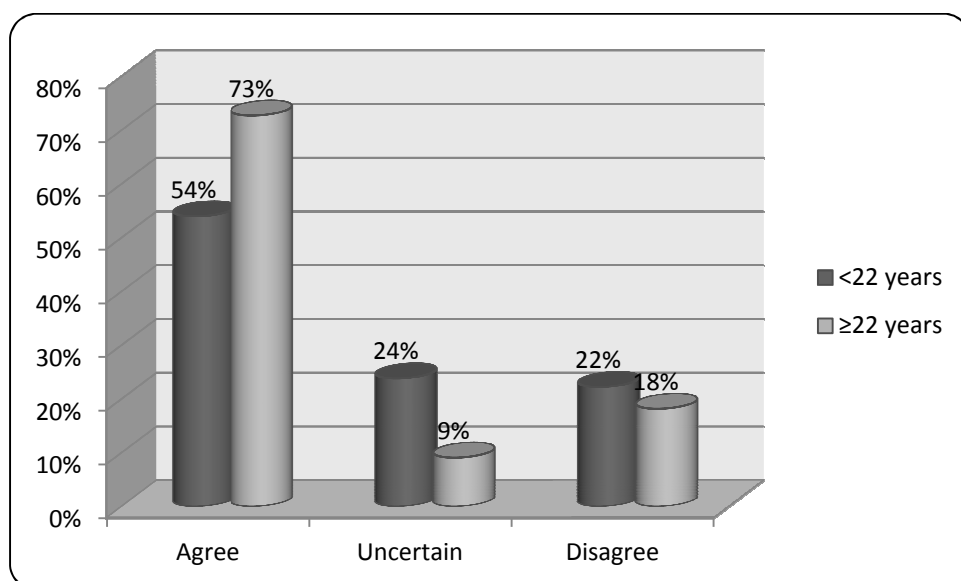


**Figure 6: Foreign Work**

### Question 7

*You are a builder doing a contract for the government. You arrange your contract price so that items of work that occur early are apportioned all of the profit in order to improve your cash flow. Is this acceptable?*

The response to this question was similar to that for Question 5, with the majority in both groups deeming this practice to be acceptable.

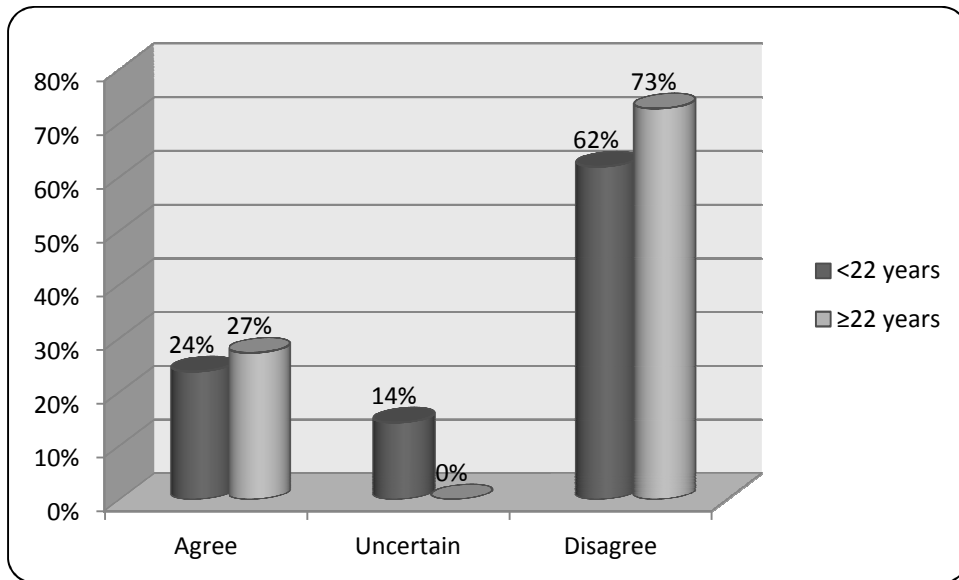


**Figure 7: Early Profit for Cash Flow**

### Question 8

*You are a contract home builder operating on tight margins. You give a quote to a Client with a provisional sum item for footings. When the footing s are billed you load the bill up as much as you can get away with in order /o increase your profit on the job. Is this acceptable?*

The majority of students in both groups felt that this was unacceptable practice. Significantly more students in the under 22 age group were 'uncertain' but the number was still low compared to those who disagreed.

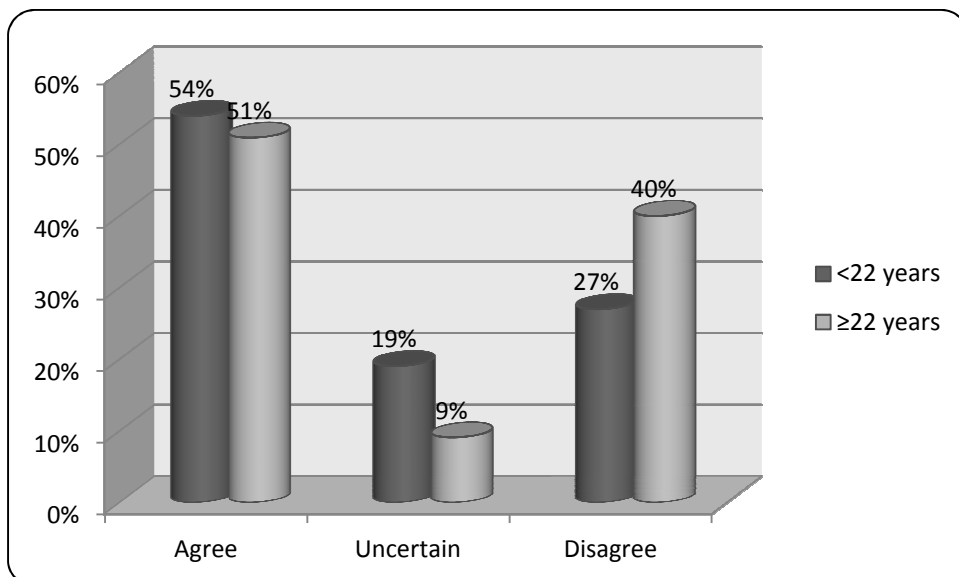


**Figure 8: Loading Provisional Sum Item**

### Question 9

*You are working on a cost-plus contract. The job is going better than much later. If you slow work on the cost-plus contract so as to finish in time for your next job the Client will still end up paying less than the budget. Is it acceptable to do this?*

Slightly over half of each category agree and there is also a high percentage of disagree in the over 22 age group.

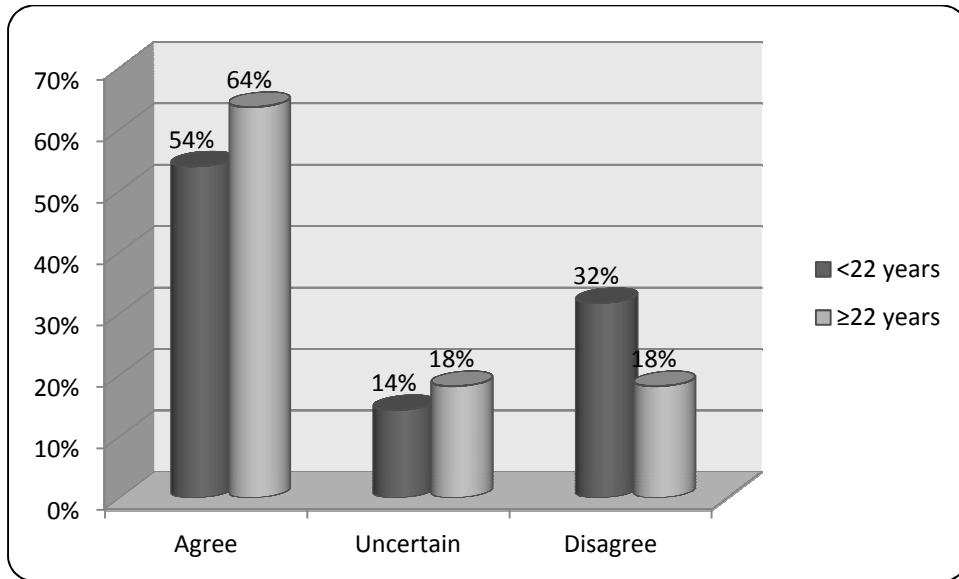


**Figure 9: Slowing Cost-Plus Job**

**Question 10**

*You are desperate for work and a Superintending Officer has the ability to slow down your project approval. He hints that he needs some work done on his house. Do you offer to help him out?*

This question received a high percentage of agreement in both categories. There is more disagreement in the under 22 age group compared to the over 22 age group.

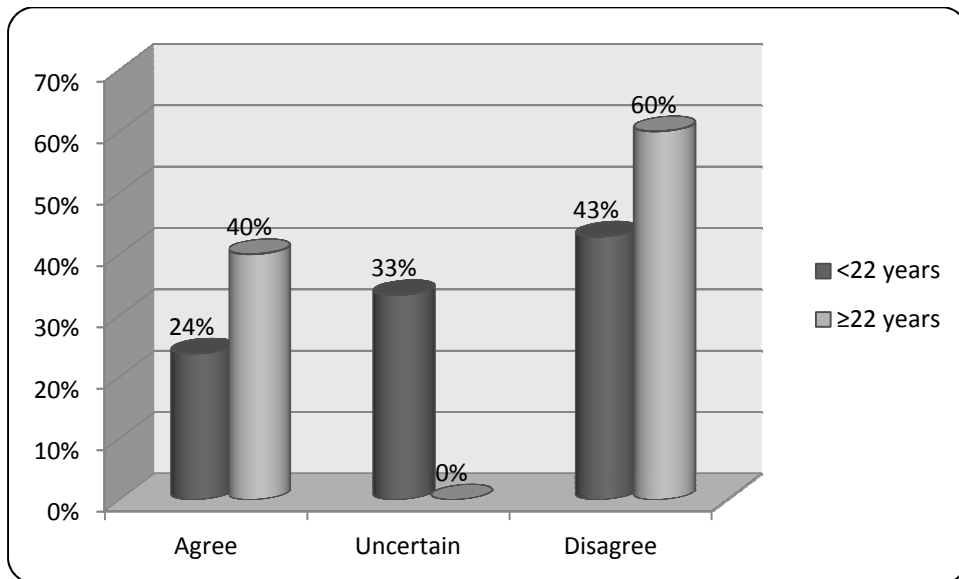


**Figure 10: Work for Building Surveyor**

**Question 11**

*A major Government Client has decided to stop giving Bills of Quantities to tenderers. You know the other tenderers and agree with them to put an allowance in your tender for the costs of each tenderer preparing quantities. The one who wins the tender would then reimburse the other tenderers for their costs in preparing their quantities. Is this acceptable?*

There is a clean 3 to 2 response in favour of rejecting the practice in the over 22 age group but there is a gradual difference in under 22 age group response from agree to disagree, with 33% of uncertainty.

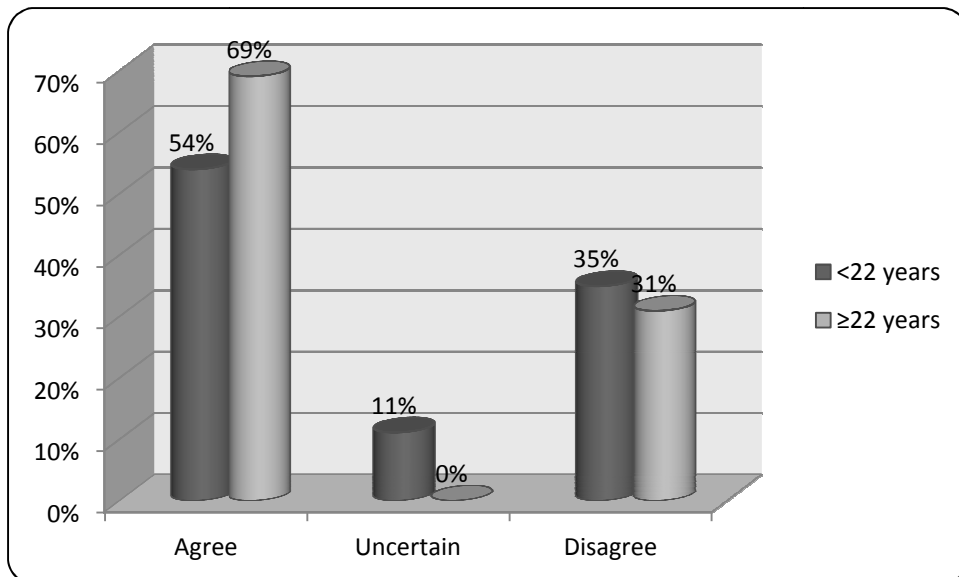


**Figure 11: Bill of Quantities**

### Question 12

*You are an employee tradesperson on a job. There are three bags of ceinott left over on a cost-plus contract. You ask the foreman if it is OK to take the -1/1 home. He says 'Sure' and you take them home. Is this acceptable?*

Students under 22 were divided on this question with slightly more saying yes. A significant majority of the over 22 year group agreed that this practice was acceptable. One might conclude here that they possibly justified their action in the belief that the foreman's reply legitimises it.

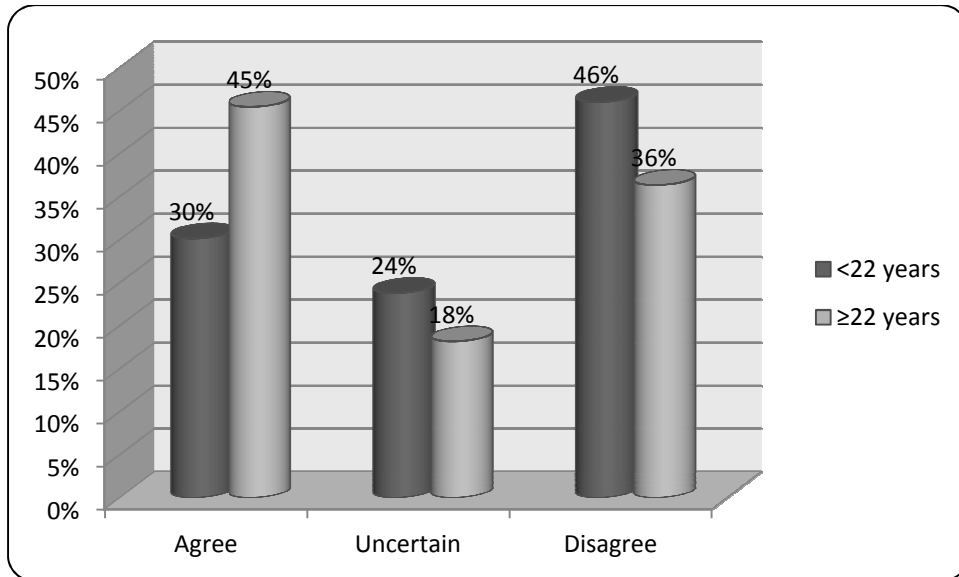


**Figure 12: Bags of Cement**

### Question 13

*You are a researcher at a university and are offered an RM100,000 grant to research a new building technology by a company that is exploiting cheap labour in a foreign country. Is it acceptable to take their money?*

For both groups, there is not much difference in the responses with a notable percentage of uncertainty for this question. This can be due to little understanding in the academic system since the students were taught and emphasised only on their technical work environment.

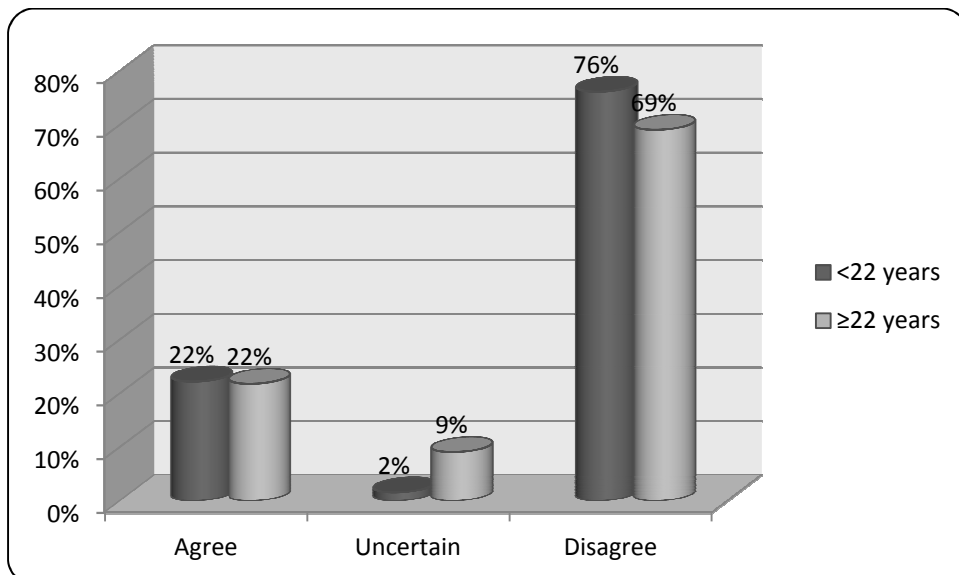


**Figure 13: Researcher/Dubious Donor**

#### Question 14

*You are building a slab on ground extension to your house. You find a horde. of a now banned termite protection chemical that was used on the intiin,; 1 of the house. This chemical isfar more effective than the one presently used. Would you use it?*

This question was answered in the negative by both groups on roughly a three to one basis.



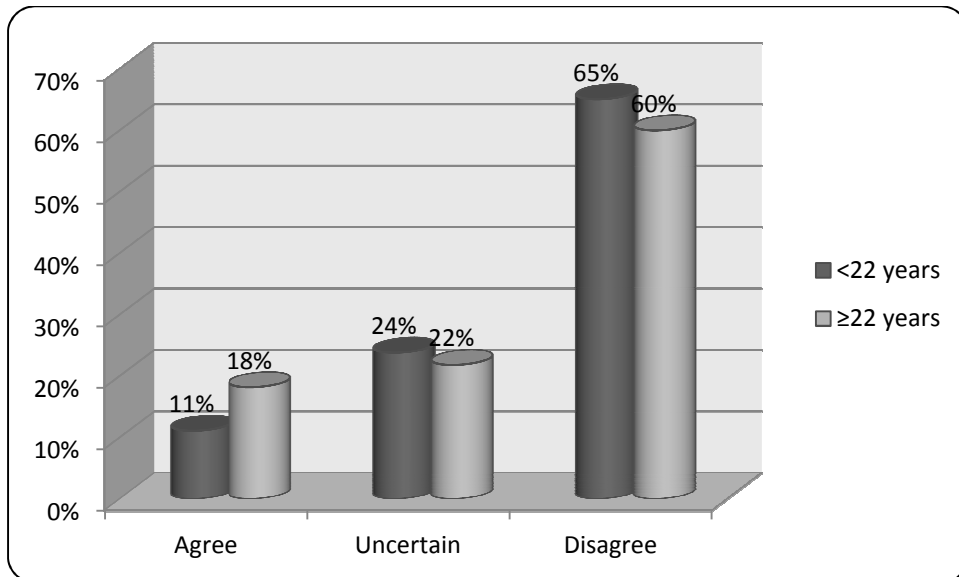
**Figure 14: Termite Chemical**

#### Question 15

*You are aware that your firm is engaged in bribing government officials to get jobs. If you report this to the authorities it is more than likely that the firm will collapse and you will lose*

*your job. You have a wife and three kids to support and have a big mortgage. Would you report your firm?*

In this question there was a significant no response in both groups but a fairly large ‘uncertain’ response (over 20% in both groups). Students under 22 showed less inclination to report their firm.

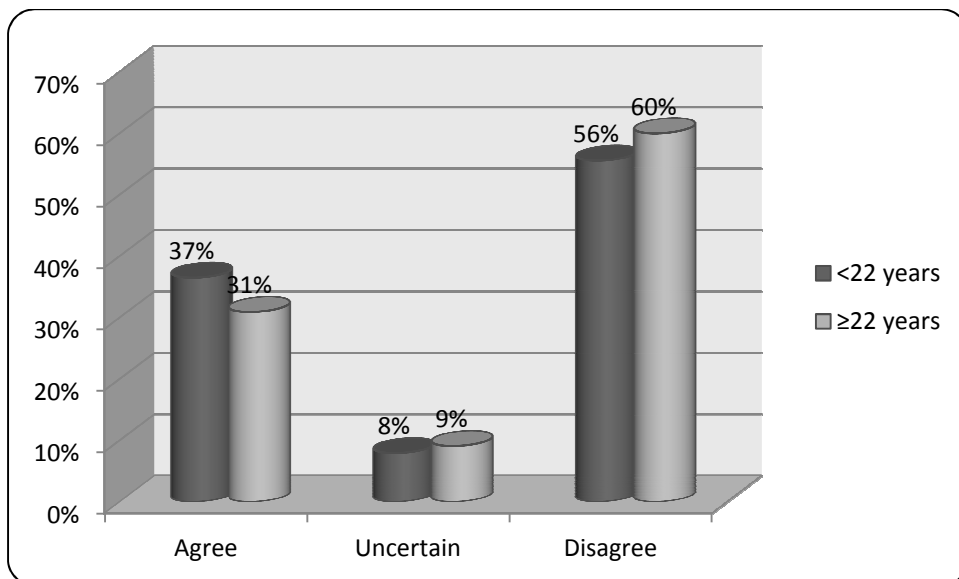


**Figure 15: Bribe/Lose Job**

#### Question 16

*Moral behaviour is incompatible with profit seeking. Do you agree?*

In both groups, most responded that they disagree. However the uncertainty regarding this statement is somewhat even in both groups.



**Figure 16: Moral Behaviour/Profit**

#### Variation of Response between Different Age Groups

The response between the different age groups was fairly similar with some minor exceptions noted above. There was however a significant overall difference in the number of 'uncertain' responses between the two groups, with those students over 22 (8% 'uncertain' responses) being far less uncertain in their responses than those under 22 (18%). This is seen to be a reflection of less exposure to the work environment in the younger students compared to older students.

## **CONCLUSION**

Moral problems and moral dilemmas require a set of skills for a person to master its dimension. The students may need to be exposed to be equipped with sufficient skills for them to stand in good stead throughout their career. This study has shown that the construction students at UiTM are possibly more morally advanced than people might give them credit for, particularly in matters of the environment (Question 14). In general the survey results indicate that the majority of students were at Kohlberg's Conventional level. However, there was a considerable uncertainty for some questions, particularly among the younger students, and the general spread of results over contractual matters (such as outlined in Questions 9 & 11), would seem to indicate that the students would need more exercise and exposure in contractual subjects.

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