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Exploratory Factor Analysis of the Ethical Orientation Scale

RAZANA JUHAIDA JOHARI*, ZURAIDAH MOHD SANUSI & AIDA HAZLIN ISMAIL

ABSTRACT

This study is to validate the 20 items of Ethics Position Questionnaire scale, developed by Forsyth (1980) within the Malaysian environment. It is necessary to find out the relevancy of the items towards Malaysian culture since the scale is originated from the western country. In addition, this study is also aims to understand the structure of correlations among each measured variables. An exploratory factor analysis is applied in order to generate simpler and more explicitly defined constructs to classify the ethical orientation scales based on Malaysian respondents. The results revealed that there are only 13 items of the Ethics Position Questionnaire scale used to measure the ethical orientation of an individual. The seven (7) items are dropped from the total items due to two reasons: (1) Insufficient item loading on the component and (2) Duplication of questions. In contrary to the previous findings, the constructs found in this study are being classified into three dimensions rather than two dimensions of ethical orientation. The rationalization of the new dimensions and implications of the findings are discussed.

Keywords: Ethics; auditing; ethical orientation

INTRODUCTION

There are many subjective definition of ethical orientation in the literature. The Cambridge Advanced Learner's Dictionary (2008), defined 'ethical' as "relating to beliefs about what is morally right and wrong"; whereas orientation is "the particular preferences, tendencies, beliefs or opinion that a person has". Therefore, by taking into account of both definitions, ethical orientation could be proposed as an individual's moral philosophy which describes the beliefs of individual in valuing the concepts like good and bad, right and wrong, justice, virtue, etc. Sullivan (2007) defined ethical orientation as an individual's internal tendency towards one ethical perspective (such as teleology and deontology) or another. Differences in ethical orientation can result in disagreements about what is ethical *per se*, about the situations to which a person should be sensitive and about the ethical judgments made.

Historically, there have been two major problems confronting researchers in conducting empirical research to identify personal ethical orientations. The two major problems are regarding the identifying of a theoretical framework based on accepted ethical philosophies and the operationalizing of the respective theoretical framework. By considering those two problems, Forsyth (1980) has developed an instrument known as "Ethics Position Questionnaire" to determine the personal ethical orientations of individuals. Subsequent to its development, the ethics position questionnaire has been used and validated in ethics research among numerous professional disciplines such as in education (e.g. Deering 1998), business and management (e.g. Henle, Giacalone & Jurkiwicz 2005; Bass, Barnett & Brown 1999) and market research (e.g. Singh, Vitell, Al-Khatib and Clark III 2007; Vitell, Lumpkin & Rawwas 1991). In respect to accountancy studies, the instrument of ethics position questionnaire has been used in prior studies of practicing auditors (e.g. Marques and Pireira 2009; Chan & Leung 2006; Douglas, Davidson & Schwatz 2001; Shaub & Munter 1993). The ethics position questionnaire has also been tested on both undergraduate and graduate students (e.g. Henle et al. 2005; Barnett et al. 1998; Barnett et al. 1994; Forsyth 1980). All the previous studies attest to the ethics position questionnaire's validity and psychometric. Empirically, it is shown that studies using the ethics position questionnaire has proven useful in explaining differences in moral judgments and support a variety of decisions that individuals make in organizations.

Noting the usefulness of the ethics position questionnaire in the western studies, this current study aims to generate simpler and more explicitly defined constructs to classify the ethical orientation scales based on Malaysian environment. In addition, this study also aims to understand the structure of correlations among each measured variables in order to determine the relevancy of the items based on Malaysian responses since the ethics position questionnaire scale is originated from the West. As noted in the ethics literatures, there are a lot of empirical results which significantly support the effect of different cultures on ethical judgment (Marques and Pereira 2008; Fernando, Dharmage and Almeida 2008; Henle, Giacalone and Jurkiewicz 2005). Recent study by Forsyth, O'Boyle and McDaniel (2008) found three important findings from cross cultural study between regions of the selected countries. Their findings indicated that (1) levels of idealism and relativism vary across regions of the world in predictable ways; (2) an exceptionist ethic is more common in Western countries, subjectivism and situationism in Eastern countries, and absolutism and situationism

in Middle Eastern countries; and (3) a nation's ethical position predicted that country's location on previously documented cultural dimensions, such as individualism and avoidance of uncertainty (Hofstede 1980).

Literature Review

ETHICS POSITION QUESTIONNAIRE – FORSYTH (1980)

In an attempt to address the above two mentioned problems (as in Section 1.0), Forsyth (1980) proposed that the current major schools of ethical thought could be most parsimoniously defined in terms of two major scales. Problem of (1) identifying a theoretical framework based on accepted ethical philosophies and (2) operationalizing the respective theoretical framework. The first scale draws on the ethical philosophy of ethical relativism and the other scale focuses on idealism in ethical judgment. Relativism scale is based on the proposition that in making ethical judgments some people rejects universal moral rules. In addition, ethical dimensions of right and wrong vary from person to person and culture to culture. Those who tend to be more relativistic consider the circumstances first rather than the potential harm a decision might cause. These individuals also tend to judge decisions more leniently (Elias 2002). Whereas, the idealism scale refers to the extent that an individual believes that ''right'' action will result in desirable consequences and can always be obtained without violating moral guidelines. For them, there is a morally correct alternative that will not harm others. Less idealistic individuals may make decisions irrespective of the impact on others.

To operationalize this theoretical framework, Forsyth (1980) conducted a research to develop a valid, reliable, and easily administered instrument to determine personal ethical orientations of individuals. Forsyth's (1980) work resulted in the development of the Ethics Position Questionnaires consisting of twenty statements. Ten of the statements concerned the idealism perspective and the other ten statements concerned the relativism perspective. A Likert-type response scales consisting of nine points from completely disagree to completely agree was used for each item. Individuals were classified as to ethical orientation by calculating their mean scores on the relativism items and the mean scores on the idealism items.

PREVIOUS EMPIRICAL STUDIES

From the prior researches, it is shown that studies using the ethics position questionnaire help to explain a variety of decisions that individuals make in organizations. For example in an accounting setting, Marques and Pereira (2009) studied on the ethical ideology and ethical judgment of Portuguese chartered accountants. Their results indicated that age was the major determinant of relativism ideology among the Portuguese accountants. Contrary to previous research, their study revealed that older respondents were significantly more relativistic than younger ones. Their findings also indicated those respondents' ethical judgments did not differ significantly based on their ethical ideology. On the other hand, Greenfield, Norman & Wier (2008) found a significant relationship between an individual's (tax practitioners) ethical orientation and ethical decision making. Their results pointed that an individual with a more idealistic ethical orientation will be less likely to engage in earnings management behavior but not for the individual with a relativistic ethical orientation.

In another study, Achilles (2006) also used ethics position questionnaire which takes advantage of different criteria to describe variations in moral thought of managers and accountants in recognizing the misappropriation of assets. Her result showed that individuals who tend to have more of a relativist ethical orientation exhibit no systematic variation in their assessment on the possibility of fraud. In 2001, Douglas et al. (2001) use the same scale to examine the ethical decision making of 304 accountants in public accounting. In particular, these researchers investigate the effects of organizational ethical culture and individual ethical orientation and how these factors impact accountant's judgments of ethical dilemmas. Results of the study indicate that ethical orientation is related to ethical judgments in high moral intensity situations but no association was found in low moral intensity situations. Earlier than that, Shaub et al. (1993) examined the ethical position, commitment and ethical sensitivity of 207 auditors from several large national accounting firms. In their study, they used path analysis and the results revealed that auditors who were relativistic were less likely to recognize ethical issues that were embedded in the scenarios used in the study. Furthermore, these auditors were also less committed to the firm and the profession. On the other hand, idealism was associated with a higher level of professional commitment. Therefore, they claim auditors must be able to recognize that an ethical issues exists if they competently exercise sensitive, ethical judgments.

From the perspective of marketing/business ethics literature, in 2010, Fernando and Chowdhury (2010) have carried out a study on the relationship between spiritual well-being and ethical orientation in decision making. A survey has been conducted amongst the executives in organizations listed on the Australian Stock Exchange. Their results reveal that spiritual well-being, in particular the communal domain of spiritual well-being, is correlated with and predictive of idealism. However, the relationship between spiritual well-being and relativism is found to be weak. Therefore, their study suggested that in terms of developing managerial programs that enhance communal well-being, the programs should lead to greater idealism in decision making. Singh et al. (2007) have carried out a comparison study involving a group of marketers in China and U.S. Their study has identified that different group of respondents act differently towards the ethics position questionnaire components. They found out that the relationship between personal moral philosophies (mainly relativism) and moral intensity varies across the two

cultures. Their study revealed that relativism is a significant predictor of moral intensity for the Chinese sample, but not for the U.S. sample. However, idealism is a significant predictor of perceived moral intensity for both samples of marketing practitioners. Henle et al. (2005) administered the ethics position questionnaire to 84 employed MBA students enrolled in business school program. Their results showed that idealism was negatively related to both organizational and personal deviance, whereas the relativism was not related to either organizational or personal deviance. Employees with higher degrees of relativism than idealism were more likely to engage in deviant behaviors toward the organization. Similarly, employees who scored lower in idealism were more likely to behave less ethically toward fellow employees in the organization.

METHODOLOGY

Generally the application of factor analysis will achieve two purposes; summarization and data reduction (Hair et al. 2010). Thus, this study generalizes the key components of ethical orientation and tries to differentiate them into similar components of construct. The aim of factor analysis is "orderly simplification" (Child 1970) and it is "particularly suitable for analyzing the patterns of complex, multidimensional relationships research issue" (Hair et al. 2010). In addition, factor analysis could reduce the data to generate more informative constructs that can be utilized to examine the underlying patterns or relationships for a large number of variables (Hair et al. 2010). The factor analysis can also be used to improve the information and usefulness of the findings of prior studies or to establish a few constructs that can be more easily applied to capture the desirable structure and interrelationship of the needed ethical orientation in considering the Malaysian respondents.

PARTICIPANTS

This study used convenient sampling and samples are taken from a group of the bachelor of accountancy students from a public university in Malaysia. Currently, they are either in their first semester (Junior) or final semester (Senior) of Bachelor of Accountancy, a two and a half year program, following on from a three year Diploma in Accountancy program. Both groups have taken auditing papers in their previous semesters. In addition, the bachelor students selected are those who have undergone practical training for six months in auditing firms. The different groups of students (i.e. Junior and Senior) are taken in order to differentiate the knowledge level of the respondents. The multi-samples of data collection from varied levels of education can help to avoid spuriously low factor loading and increase the validity of factor analysis results (Bartholomew 1999). In total, data represents 159 participants (19 males; 140 females) with an average age of 23 years.

RESEARCH INSTRUMENT

A 20-items questionnaire survey was used which consisted of 10 questions each on idealism (IEO) and relativism (REO) and were adapted from the ethics position questionnaire (Forsyth 1980) measures which was used to identify the participant's ethical orientation. An example item is "People should make certain that their actions never intentionally harm another even to a small degree". Responses were on a nine-point Likert-type scale (1=strongly disagree; 9=strongly agree).

DATA COLLECTION

Data was collected by using a personally administered survey method. The questionnaires were distributed to the participants in the respective classroom. The sessions were being observed by the researcher in order to assist them in answering the questionnaires. This approach was taken to increase the response rate and to minimize incorrect responses due to respondent's misunderstanding toward some questions (Keller & Warrack 2003). In total data comprise 159 participants (19 males; 140 females) with an average age of 23 years.

RESULTS

DATA SCREENING

Before analyzing the data, it is essential to check the set of data for errors (Pallant 2007). When checking for error, the researcher primarily looks for values that fall outside the range of possible values for variables. As presented in Table 1 below, the results from the descriptive analysis show that there are 9 missing data out of the 159 total

TABLE 1. Descriptive Analysis (N=159)

	Valid		Missing	
Variable	N	Percent	N	Percent
V 1	159	100.0%	0	.0%
V 2	159	100.0%	0	.0%
V 3	158	99.4%	1	.6%
V 4	159	100.0%	0	.0%
V 5	158	99.4%	1	.6%
V 6	159	100.0%	0	.0%
V 7	159	100.0%	0	.0%
V 8	159	100.0%	0	.0%
V 9	158	99.4%	1	.6%
V10	159	100.0%	0	.0%
V11	158	99.4%	1	.6%
V12	158	99.4%	1	.6%
V13	159	100.0%	0	.0%
V14	157	98.7%	2	1.3%
V15	159	100.0%	0	.0%
V16	157	98.7%	2	1.3%
V17	159	100.0%	0	.0%
V18	159	100.0%	0	.0%
V19	159	100.0%	0	.0%
V20	159	100.0%	0	.0%

numbers of valid cases. The total number of missing data represents between 0.6% and 1.3%. As the percentage of total missing data is under 10 percent, therefore, this observation can generally be ignored (Hair et al. 2010). The minimum amount of data for factor analysis was fulfilled, for a final sample size of 159, with 8 cases per variable.

RELIABILITY TEST

Reliability test provides evidence on the measurement scales and the items in the questionnaire are related to each other. This means that for the first construct of the scale i.e. idealism, there are eight items measured the construct. Whereas, for the second construct i.e. relativism, there were nine items measured the construct. The reliability coefficient should be 0.80 or higher to be considered adequate (Nunnally 1978). Table 2 shows the statistical tests of the reliability of ethical orientation constructs. It was found that the 10 items of the IEO scale has a Cronbach's alpha reliability coefficient of 0.79 and a standardized item alpha of 0.81. In order to increase the value to 0.84, two items (Item 7 and Item 9) are being excluded from the questionnaire. As a result, the Cronbach's alpha reliability coefficient has turned to 0.84 and a standardized item alpha of 0.82. This indicates that each dimension of IEO has sufficient internal consistency.

On the other hand, the REO scale gives a Cronbach's alpha reliability coefficient of 0.76 and a standardized item alpha of 0.77. In order to increase the value to 0.77, Item 1 is being excluded from the questionnaire. As a result, the Cronbach's alpha reliability coefficient turned to 0.77 with a standardized item alpha of 0.78. From the analysis, the REO scale has a modest reliability coefficient of 0.78 and a standardized item alpha of 0.78 with 9 out of 10 items.

In addition, Table 2 also shows the item-total correlations and Cronbach's alpha if the item is deleted. The item-total correlation indicates the degree to which each item correlates with the total score. Low values (less than 0.3) indicate that the item is measuring something different from the scale as a whole. The range of the item-total correlation for IEO is from 0.38 to 0.66 and REO scale is from 0.37 to 0.55. Hence, results suggest that each item of the IEO scale is higher related to their respective variables compared to the REO scale. The alpha item deleted score specifies the extent to which each item contributes to an increased alpha coefficient. From Table 2, it can be seen that the final results do not suggest for any item to be deleted because the alpha coefficient will decrease if the respective item is omitted.

TABLE 2. Statistical Tests of the Reliability of Ethical Orientation Constructs

Scale item - IEO	Corrected item-total correlation	Cronbach's alpha if item deleted
IEO 1	.59	.77
IEO 2	.38	.81
IEO 3	.47	.80
IEO 4	.56	.78
IEO 5	.66	.77
IEO 6	.51	.78
IEO 8	.64	.76
IEO 10	.46	.79
Reliability coefficients:		
Cronbach's Alpha	.84	
Standardized Item Alpha	.82	
N of items	8	

Scale item - REO	Corrected item-total correlation	Cronbach's alpha if item deleted
REO 2	.51	.75
REO 3	.40	.77
REO 4	.42	.76
REO 5	.55	.74
REO 6	.55	.74
REO 7	.50	.75
REO 8	.51	.75
REO 9	.40	.77
REO10	.37	.77
Reliability coefficients:		
Cronbach's Alpha	.77	
Standardized Item Alpha	.78	
N of items	9	

Note: IEO = Idealism Ethical Orientation, REO = Relativism Ethical Orientation.

EXPLORATORY FACTOR ANALYSIS

The general purpose of factor analysis is to find a way to summarize the information contained in a number of original variables into a smaller set of new, composites dimensions or variables. Exploratory factor analysis is a statistical technique that is used to reduce data to a smaller set of summary variables and to explore the underlining theoretical structure of the phenomena. It is used to identify the structure of the relationship between the variable and the respondent. A method of R-type factor analysis is performed when the unit of analysis is the variables (i.e. ethical orientation) and factors are calculated from a correlation matrix. Otherwise, the Q-type factor analysis will be utilized when factors are calculated from the individual respondent.

There are several assumptions in exploratory factor analysis, i.e. (1) Variables used in exploratory factor analysis should be metric; (2) Sample size should be more than 100. In some cases, sample size for exploratory factor analysis may be considered for 5 observations per variable; (3) A sample should be homogenous. Violation of this assumption increases the sample size as the number of variables increases. Reliability analysis is conducted to check the homogeneity between variables; (4) Multivariate normality is not required; (5) At least 0.30 correlations are required between the research variables; and (6) There should be no outlier in the data.

In this current study, initially, the factorability of the 20-item of ethics position questionnaire was examined. Firstly, from Table 3, the correlation matrix reveals that 46 of the 190 correlations (24%) are significant at 0.1 level.

TABLE 3. Correlation matrix variables of ethical orientation components

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
V1	1.000	.235	**.421**	**.458**	**.449**	**.392**	.110	**.524**	.227	**.306**	.040	.245	.130	.199	.222	.078	.094	.090	.256	.008
V2		1.000	**.547**	.075	.207	.178	**.368**	.169	.084	.270	**.301**	.130	.039	.065	.078	.232	.131	.163	.180	.194
V3			1.000	.215	.257	.211	.202	.270	.157	.176	.110	.130	-.009	.066	.116	.146	.054	.101	.196	.245
V4				1.000	**.656**	**.416**	.061	**.635**	.111	**.307**	-0.30	.260	.246	**.309**	.257	.018	-.004	.091	.146	.048
V5					1.000	**.599**	.191	**.619**	.230	**.385**	-.083	.224	.169	.207	.215	.142	-.002	.113	.115	.040
V6						1.000	.161	**.424**	.098	**.322**	.021	.109	.012	.273	.089	.097	.076	.026	.101	-.044
V7							1.000	.190	.163	**.387**	**.361**	.272	.111	.188	.062	.290	**.316**	**.311**	.170	.083
V8								1.000	.169	**.472**	-.065	**.306**	.236	**.401**	.299	.122	.091	.137	.128	.123
V9									1.000	.282	.032	.095	.105	.169	.066	.134	-.043	.032	.123	-.033
V10										1.000	.144	.284	.261	.273	**.349**	**.361**	**.320**	.290	.160	.095
V11											1.000	.234	-0.46	.060	.083	.241	**.356**	.105	.295	.159
V12												1.000	**.338**	**.412**	**.348**	.233	**.353**	**.348**	.264	.193
V13													1.000	**.421**	**.327**	.172	.230	.164	.138	.219
V14														1.000	**.400**	.227	.153	**.302**	.203	.143
V15															1.000	**.491**	**.321**	**.369**	.299	.162
V16																1.000	**.508**	**.536**	.221	.229
V17																	1.000	**.509**	.206	.126
V18																		1.000	.156	.157
V19																			1.000	**.542**
V20																				1.000

Note: bolded values indicate correlations significant at 0.1 significance level.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.751
Bartlett's Test of Approx. Chi-Square Sphericity	1101.480
df	190
Sig.	.000

Those items correlated at least .3 with at least one other item, suggesting reasonable factorability. This inspection provides an adequate basis for proceeding to an empirical examination of adequacy for factor analysis on both overall basis and for each variable. Secondly, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .75, above the recommended value of .6 and Bartlett's test of sphericity was significant ($\chi^2(190) = 1101.48, p < .000$).

Then, the Principal Component Analysis (PCA) method is used to extract factor and adopted a factor loading of .50 and above to determine the significant loadings on a particular factor (Hair et al. 2010, Table 3.2, page 117). There are three techniques namely Kaiser's Criterion, Scree Test and Parallel Analysis used in this study to assist in the decision concerning the number of factors to retain.

KAISER'S CRITERION

According to the general rule applied in most factor analysis studies, only factors with an eigenvalue of 1.0 or more are retained for further investigation. The eigenvalue of a factor represents the amount of the total variance explained by that factor. As a result presented in Table 4, six factors were removed with 64.87% of the total variance being explained cumulatively.

SCREE TEST

An inspection of the screeplot with the result presented in Figure 1 revealed a clear break between the fourth and fifth components. Catell (1966) recommends retaining all factors above the elbow or breaking in the plot, as these factors contribute the most to the explanation of the variance in the data set. Therefore, following Catell's (1966) rule, it was decided to retain only four components for further investigation. The four components solution explained a total of 59.83% of the variance, with Component 1 contributing 25.82%, Component 2 contributing to 12.82%, Component 3 contributing to 8.88% and Component 4 contributing to 7.05%.

PARALLEL ANALYSIS

In the Parallel Analysis, the size of eigenvalues was compared with those obtained from a randomly generated data set of the same size. Only those actual eigenvalues from PCA exceed the corresponding values from random data set are retained. The Parallel Analysis result which is being presented in Table 5, support our decision from the screeplot to retain four components (i.e. the component 1, 2, 3 and 4) for further investigation.

TABLE 4. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings(a)
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	5.163	25.817	**25.817**	5.163	25.817	25.817	4.073
2	2.563	12.817	**38.634**	2.563	12.817	38.634	3.491
3	1.775	8.876	**47.511**	1.775	8.876	47.511	1.687
4	1.410	7.050	**54.561**	1.410	7.050	54.561	2.435
5	1.053	5.264	**59.825**	1.053	5.264	59.825	2.070
6	1.008	5.040	**64.865**	1.008	5.040	64.865	2.174
7	.905	4.526	69.391				
8	.816	4.078	73.469				
9	.703	3.517	76.986				
10	.682	3.411	80.397				
11	.600	3.001	83.398				
12	.547	2.733	86.132				
13	.497	2.485	88.616				
14	.476	2.381	90.997				
15	.415	2.073	93.070				
16	.368	1.842	94.912				
17	.328	1.638	96.550				
18	.275	1.376	97.926				
19	.218	1.091	99.017				
20	.197	.983	100.000				

Note: Extraction Method: Principal Component Analysis

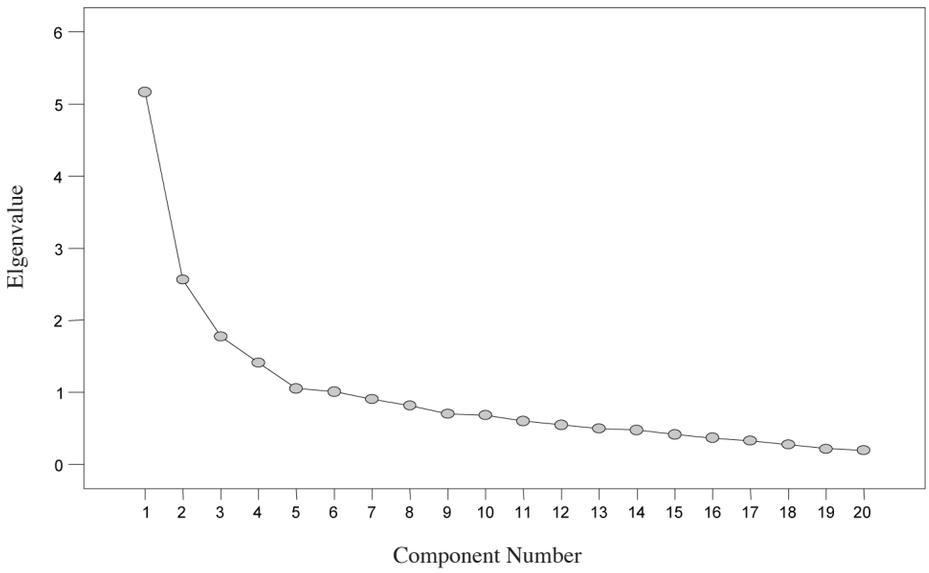

FIGURE 1. Scree Plot

TABLE 5. Comparison of Eigenvalues from PCA and Criterion Values from Parallel Analysis

Component number	Actual eigenvalue from PCA	Criterion value from parallel analysis	Decision
1	**5.163**	1.6848	Accept
2	**2.563**	1.5613	Accept
3	**1.775**	1.4574	Accept
4	**1.410**	1.3725	Accept
5	1.053	**1.2997**	Reject

To aid further in the interpretation of the above analysis, a rotation method of Oblimin with Kaizer Normalization was performed to derive the final components of the ethical orientation scale (Please refer to Appendix 1).

CLASSIFICATION OF CONSTRUCT

A principle-components factor analysis of the twenty (20) items, using oblimin rotations has revealed the three component factors with the thirteen (13) items. The three component factors extracted explain 48% of the variance. An oblimin rotation provided the best defined factor structure. All items had primary loadings over .5. (Please refer to Appendix 1). The factor loading matrix for this final solution is presented in Table 6.

Table 6 identifies the three component factors and items under each factor. These factors are revealed from the responses made by the Malaysian participants on ethical orientation scale originally developed by Forsyth (1980). The respondent perceived that the most important criteria for ethical orientation should be the idealism of the respondents with the five (5) items, i.e. "No physiological harm"; "No threat dignity, no harm innocent"; and "The importance of dignity and welfare and not harmful action". Compared to the original scale, these items are removed from the ten items of Idealism scale. Therefore, the factor labels (Idealism) proposed by Forsyth (1980) is retained. This construct has the largest number of loading items/ variables among the three factors with eigenvalues of 4.07 and the total variance being explained is 25.81%. In addition, all items/variables loading in this factor have a high level of internal consistence and reliability with the Cronbach's Alpha of 0.84. Next, the variables with significant loading in the second construct from our factor extraction include four (4) items i.e. "Moral standard are personal rules"; "Ethical position prevents action"; "Allowable to formulate individual codes"; and "Ethical questions can never resolve". Again, compared to the original scale, these items are removed from the ten items of Relativism scale. Therefore, this factor will also retain the original factor label i.e Relativism. The eigenvalue of this factor is 3.49 with percentage of total variance explained is 12.82%. In addition, the Cronbach's Alpha for this factor is 0.77.

TABLE 6. Results of Factor Extraction on Idealism, Relativism and Utilitarianism Components

	Component Factor		
	1	2	3
One should never psychologically or physically harm another person.	.840		
One should not perform an action which might in any way threaten the dignity and welfare of another individual.	.839		
If an action could harm an innocent other, then it should not be done.	.790		
The dignity and welfare of the people should be the most important concern in any society.	.784		
People should make certain that their actions never intentionally harm another even to a small degree.	.643		
Moral standards are simply personal rules that indicate how a person should behave and are not applied in making judgments of others.		.861	
Rigidly codifying an ethical position that prevents certain types of actions could stand in the way of better human relations and adjustment.		.829	
Ethical considerations in interpersonal relations are so complex that individuals should be allowed to formulate their own individual codes.		.671	
Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual.		.644	
The existence of potential harm to others is always wrong, irrespective of the benefits to be gained.			.638
Risks to another should never be tolerated, irrespective of how small the risks might be.			.571
Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person.			-.535
What is ethical varies from one situation and society to another.			-.500
Eigenvalues (rotation sum)	4.07	3.49	1.68
-% of variance explained	25.82	12.82	8.88
-cumulative % of variance explained	25.82	38.74	47.62

Finally, from the factor analysis results, there is another factor component revealed from the data. This third component with the four (4) items (i.e. "The existence of potential harm to others is always wrong, irrespective of the benefits to be gained"; Risks to another should never be tolerated, irrespective of how small the risks might be"; "Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person."; and "What is ethical varies from one situation and society to another."), has an eigenvalue of 1.68 with a percentage of total variance explained is 8.88%. The four items in the construct is actually the combination items from the two original scales. It is comprised of the two items from the original Idealism ("The existence of potential harm to others is always wrong, irrespective of the benefits to be gained"; and "Risks to another should never be tolerated, irrespective of how small the risks might be") and another two items from the original Relativism scales ("Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person"; and "What is ethical varies from one situation and society to another").

Therefore, the new factor label is needed for this construct. The construct comprises both the focus on the public/everyone and on the individual/self. This component could be supported by the Utilitarianism Theory. According to the theory, one should behave so as to create the greatest good for the greatest number which focuses on the consequences for everyone involved including him or herself (Northouse 2003). The first two items of the new construct ("The existence of potential harm to others is always wrong, irrespective of the benefits to be gained"; and "Risks to another should never be tolerated, irrespective of how small the risks might be") represent the focus of the consequences for everyone involved whereas, the next two items ("Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person"; and "What is ethical varies from one situation and society to another") represent the concern of the decision on the person him or herself. Therefore, the new factor label is suited to be labeled as 'Utilitarianism' construct.

CONCLUSIONS

This is the first study that has verified the ethical orientation scale developed by Forsyth (1980) to suit with the Malaysian environment. Overall, the results indicated that out of the 20 items of ethical orientation items in Forsyth (1980), only thirteen (13) items are extracted and best suited to measure the ethical orientation of the Malaysian participants. The seven (7) items which were dropped from the total twenty (20) items are due to two reasons discovered from the analysis done. The two reasons are due to insufficient item loading on the component and the occurrence of duplicate questions.

The ideal number on each component should be three (3) items and above (Pallant 2007). All the seven (7) items excluded are loading to each construct with insufficient item (component 4 and 6 with 2 items, component 5 with 1 item). Overall, the three (3) items excluded are from the original Idealism scales (i.e. "Balancing positive and negative consequences is immoral"; "It is never necessary to sacrifice the welfare of others"; and "Moral behaviors are actions that closely match ideals of the most "perfect" action"). Whereas, the other four (4) items excluded are from the original Relativism scales (i.e. "There are no ethical principles that are so important that they should be a part of any code of ethics"; "Morality cannot compared to rightness"; "No rules concerning lying can be formulated; "Whether a lie is permissible or not permissible totally depends upon the situation"; and "Whether a lie is judged to be or immoral depends upon the circumstances surrounding the action". In addition, there are some items which duplicate each other, for example, the last two items of the scale (i.e. "Whether a lie is permissible or not permissible totally depends upon the situation"; and "Whether a lie is judged to be or immoral depends upon the circumstances surrounding the action").

In addition, the results also revealed that the two components of the ethics position questionnaire scale have been expanded to the three components namely; 'Idealism', 'Relativism' and 'Utilitarianism'. The new component disclosed from the analysis is labeled as 'Utilitarianism' which actually combines the two items each from the idealism and relativism items. These findings could be best explained by the anticipation done earlier in this paper. Due to the differences in culture between the west and the east, the Malaysian participants' reactions towards the ethics position questionnaire scale are also to some extent differ from the Western participants. Therefore, it is rationalized the differences of the items which contribute under each of the constructs as identified above. The three components scale of measuring the ethical orientation is hoped to give some insights into the appropriate items of the constructs and could contribute to a more meaningful result especially in the Malaysian environment and generally amongst the Asian countries. This study however, has a number of limitations. As this is an exploratory study using the convenience sampling, generalisability of the findings to the whole population of Malaysian respondents may be limited. In order to enhance the scale's reliability, the new scale should be further verified in future Malaysian and Asian studies.

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Razana Juhaida Johari*
Accounting Research Institute & Faculty of Accountancy,
Universiti Teknologi MARA
Kampus Kelantan
18500 Machang
Kelantan

Zuraidah Mohd Sanusi
Aida Hazlin Ismail
Universiti Teknologi MARA Shah Alam
40000 Shah Alam
Selangor

*Corresponding author; email: razanajuhaidajohari@gmail.com

APPENDIX 1

Pattern Matrix

	Component					
	1	2	3	4	5	6
V 4	**.840**					
V 5	**.839**					
V 6	**.790**					
V 8	**.784**					
V 1	**.643**					
V1 6		**.861**				
V1 8		**.829**				
V1 7		**.671**				
V1 5		**.644**				
V 10						
V 3			**.638**			
V 2			**.571**			
V1 3			**-.535**			
V1 4			**-.500**			
V1 2						
V 20				.856		
V1 9				.777		
V 9					.943	
V1 1						-.807
V 7						-.692

Extraction method: Principal Component Analysis
(Rotation method: Oblimin with Kaizer Normalization)

Note: The Pattern Matrix table shows the rotated six-factor solution. This shows the items loadings on the six factors with five items loading above .5 on component 1, four items loading on component 2 and 3, two items on component 4 and 6 and only one item on component 4. According to Pallant (2007), the ideal number of loading on each component should be three or more items. Therefore, this result further supported the decision to retain only three factors.