

Comparative Analytical Hierarchy Process on Individual Factors of Ethical Decision Making between Local and Foreign Associate Public Accountants

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Abstract: Researchs about ethical decision making (EDM) is now more explaining the influence of individuals and organizational factors to the ethical awareness, ethical judgments, ethical intentions or ethical behavior. Whereas to apply the factors which are most useful in the development of individual's ethical decision making still need to consider influencing's significance and consistency of these factors upon the ethical decision making. Thus there is a gap to do researchs in order to identify which the most powerful individual factors were influence on ethical decisions making especially for certified public accountants (CPA's). The objective of this study is to propose a simple identification of significance and consistency of the research results in the development of local and foreign associate CPA's ethical decisionmaking. This study uses a very simple method in evaluating the conclusions of EDM research and Analytic Hierarchy Process (AHP) in identifying the significance and consistency, and used samples of 90 local and foreign associate CPA's. The results of this study identified the highest number of significance and consistency factors likes social consensus, idealism and gender those strongly influence EDM of local CPA's, and individual factors likes social consensus, relativism and idealism strongly influence foreign associate CPA's in EDM.

Keywords: analytical hierarchy process; local and foreign associate CPA's; ethical decision making

JEL codes: M4

1. Introduction

The importance of decision-making in the accounting practices were the making decisions based on critical ethics judgments by accountants (Barlaup et al., 2009). Accounting can be used to increase focus in judgments and behaving ethically profession, then accountant ethical behavior can restore trust and confidence in the capital market system with reduced cases of financial reporting irregularities. To maintain critical ethics judgments, accountants in their profession need to take its critical ethics upgrading periodically (Buttross et al., 2011).

The findings of the study about the placement of students in the ethical context have developed a measure of sensitivity as well as the ethical and moral judgments. This suggest that the importance of ethical education, particularly about the ethical decision making discussion undertaken in the study, and the implementation of ethical education for accountants who have engaged in accounting practices, in such forms of ethics refreshing exercises (Bolliot et al., 2012).

Brierley & Cowton (2000), and Cowton (1998) put professionals qualitative analysis to discuss the conflicts that occur in the organization of accountants and propose the use of secondary data in business ethics research. The use of secondary data then became the basis of this research to explain the influence of individual factors rank, and situational with current ethical decision making so as to facilitate its application. While research has been done over many previous studies conclude how the influence of individual, organizational and situational factors at stages of ethical decision making, or directly on ethical behavior (Ford & Richardson, 1994).

On the other hand practically to apply the factors or one of the factors which are most useful in the development of an individual's ethical decision making still need to consider the review and consideration of the initial or repeated influence of these factors on the ethical decision making as a whole. So there is a gap to do research in order to identify the significance and consistency of these factors.

This study suggests the following research questions:

(1) How the most significant factors' role in the ethical decision making by local and foreign associate CPA's?

(2) How to identify the consistency identification of factors that are most useful in the development of ethical decision making by local and foreign associate CPA's?

Based on such research motivation, research background and research questions that have been developed, the objective of this study:

(1) To identify the most significant factors' role in local and foreign associate CPA's ethical decision making.

(2) To identify how consistent of the most important factors for the development of ethical decision making in the local and foreign associate CPA's?

2. Literature

Company's profit increments are also the performance of the accounting profession with its financial reporting. Accountant's ethical decision making is an important aspect of the success and sustainability of a professional career in accounting or finance major that impact on the survival of the company through an increase in the profit generated. Anything that says success will not mean, without the role of ethical decision making by management accountants in each business organizations (Barlaup et al., 2009). So that an accurate ethical decision making is very important aspect of the success and continuity of individual's professional career in business organizations.

Definition of ethical decision making:

Ethical decision making is defined as "a process in which the individuals use rationale for determining whether a particular issue is right or wrong" (Carlson et al., 2002).

While ethics may be described as a systematic attempt to understand moral concepts and propose and defend the principles and theories associated with right and wrong behavior. Later in the *Merriam Webster Collegiate Dictionary*, quoted by (Barlaup et al., 2009) describes four basic understanding of ethics:

(1) Discipline particular with respect to what is said to be good or bad about the duty and moral obligation.

(2) A set of principles and moral values.

(3) A theory or system of moral values.

(4) Certain principles of good governance should be conducted individual or group

Researchers often make a distinction between ethics and morality, in which ethics is a theory of action, is good and right, and morality is a record that indicates ethical practices.

Loe et al. (2000) describes the most comprehensive models of ethical decision making synthesis is made by Jones (1991). The model integrates models of previous ethical decision making and represents an overall agreed variables that affect the ethical decision making and introduce a concept of “moral intensity”. Jones believes that previous studies lack discussed ethical issues and identifies the influencing factors such as ethical intensity. The ethical intensity is “*an extension of the issues associated with the moral imperative to do in the certain situations*”. The foundation of the Jones’ model is based on four stages of the process (Rest’s, 1986) which is a four-stage process: the recognition of moral issues (*moral awareness/recognition*), the formation of moral judgment (*moral judgment*), the determination of the moral intentions (*establishing moral intention*) and involvement in the moral behavior (*engaging in moral behavior*). Jones (1991) using four stages of Rest’s (1986) connects the positive ethical decision making model and assumes that ethical choice is not just an individual decision, but determined by social learning in an organization.

Previously (Trevino, 1986) have proposed a model of ethical decision with give more attention to mutual influence on each other’s, which is largely built on the basis of the theory about cognitive moral development (*cognitive moral development or CMD*) by Kohlberg’s (1968) and has included also a three-part process of ethical decision making of Rest into its model. In the complex model, the ethical decision making process is described in three stages ranging from the recognition of an ethical issue, and the cognitive processing, then in the context of how to start the real work as ethical behavior. There are two groups of individual and organizational variables related to the way of thinking when individuals face ethical dilemmas. Substituting these variables in the theoretical framework of ethical decision making has been recognized to be an important development in the research on business ethics; for example three reviews that have been carried out by Ford & Richardson (1994), O’Fallon & Butterfield (2005), and Craft (2013).

Based on the model (Rest’s, 1986), Jones (1991) has built a model of ethical decision making contingent issues. Jones argues that most models of ethical decision making in ethical business research developed on the Rest (1986) that is a four-component model of the sequence. Nevertheless, none of these models has formed a characteristic ethical issue itself either as an independent factor or moderating factors. Therefore, Jones has developed a variety of things from its own ethical issues such as ethical intensity component, into a model of ethical decision-making process. Jones (1991) says that people react differently to ethical issues in the case are systematically related to the characteristics of the issue itself. Jones (1991) later claimed that certain characteristic of the ethical issue itself is an important determinant of ethical decision-making process.

According to Ponemon et al. (1992) ethical decision making is a theoretical design that originally derived from social psychology, and social philosophy which is then applied to the science of economics, for example; Ajzen (1975), Rest (1986). Based on the documentation of the development of moral psychology that began with the work of a notes of children psychologist named Piaget (1932 to 1966) quoted by Ponemon et al. (1992), then Kohlberg(1968) subsequently developed a stage theory of moral development.

Recognition of ethical (*ethical recognition*) is a fundamental and important stage of ethical decision making, because by admitting a means to initiate ethical issues ethical decision making.

“An individual’s recognition that his or her potential decision or action could influence the interests, welfare, or expectations of the self or others in a way that may conflict with one or more ethical principles” quoted by Musbah (2010).

Ethical recognition as “an acknowledgment by the individual that a potential decision or action that may affect the willingness of individuals, welfare, or the expectations of his own or the other party in a manner that may cause conflicts on one or more ethical principles”.

Jones (1991) claim that the recognition of ethical issues covering two important components in identifying ethical issues: 1) the individual must realize that their actions will affect the welfare of others, and 2) the individual has their own accord in the issue. Thus, when individuals fail to identify the ethical issues, they have no chance to proceed to the next stage of an ethical decision making and their decision will be made according to other aspects such as economic motivations. Empirical studies (Chan & Leung, 2006); Trevino (1986) suggested and demonstrated that ethical recognition is conditional on the individual variables (*e.g., age, gender, and education level*), organizational variables (*e.g., ethical codes, ethical climate, top management*) and specific content of the ethical issues (*magnitude of consequences, social consensus, the possible influence*). Researchers have called for further research to clarify the variables that may affect the recognition of ethical (Chan & Leung, 2006).

Research (Hwang et al., 2008) is intended to examine the impact of culture on accounting and auditing professionals present and future and have the intention to introduce it in the Chinese culture. This study resulted in the finding that the majority of the respondents believe that the general sense of a morality is the most important factor to be sounded.

The second phase of the process of ethical decision making is ethical considerations or ethical judgment.

Trevino (1986) defines ethical considerations (ethical judgment) as “cognitive processes in terms of an individual determines the set of actions that are morally right or wrong” or “cognitive process in which an individual determines the courses of action are morally right or wrong”. The main element of this definition is that the cognitive skills will be used by decision makers when faced with an ethical issue to distinguish true or false.

In the first stage of moral development stages (Kohlberg, 1968), adherence to the rules is important because it means avoiding sanctions and penalties. Individuals in the second stage based ethical policies on the type of specific cost-benefit analysis, which primarily reflect their interests; these stages are known as conventional levels before (*pre-conventional*), individual moral judgments based on personal interests alone. In stage three individuals to behave ethically in order to satisfy his desire and some other important things. In the fourth stage, the focus is law enforcement and the existence of the message to follow the rules, work assignment, and how responsibilities. The second level (*stages three and four*), which was designated conventional levels (*conventional level*), in which individuals develop their moral policy from a particular perspective in which they are part of a group whose members share a common interest. The fifth stage began to notice the difference in the values, opinions, and beliefs of others. In the sixth stage, ethical behavior is based on the defense of the principles of universal justice and ethics. The third level (*stages five and six*), which is referred to as levels after conventional (*post-conventional*), individuals function rationally and ethically in an effort to maintain ethical standards above what has been built by the community (Trevino, 1986).

Although Kohlberg's theory has dominated the field of ethical research in the field of psychology as well as business, but that does not mean there is no criticism of this theory (Jones, 1991; Rest et al., 1986). Inside his review, Rest et al. (1986) recapitulate some of the limitations of the cognitive moral development theory (*Cognitive Moral Development*) or CMD, they criticize that cognitive moral development theory focuses only on ethical policies as the main determinant of ethical behavior that occurs avoidance part-of another part of the

ethical process, for example ethical intentions can influence individual behavior. The next criticism is the theory of cognitive moral development was based on the philosophical and western culture. Some eastern countries, such as China and India, with different cultures and philosophic may also have different ethical views of western ethical views are not taken into account by Kohlberg's theory.

Ponemon (1990) states that one way to understand these three levels is to think about these things differently in relationship between things themselves with rules that exist in society and its expectations. Next, Venezia (2005) conducted a study comparing how different ethical considerations (*ethical reasoning*) and (*ethical judgment*) between students accounting in Taiwan with the United States (USA). The results of this study stated that accounting students in Taiwan make the process of ethical considerations higher than the accounting students in the United States.

According to Rest's (1986) which states that motivation or intention ethics (ethical intention) is "a certain level of commitment to take a series of actions, placing moral values above other values, and taking personal responsibility for the results of the ethical (Jones, 1991)".

However, Shaw (2006) argues the intention is not motivation, because motivation is a motivation to act something is the purpose of a particular action aimed at the realization of an end goal. Although previously Armstrong et al. (2002) using the term virtue has reinforced the theory by using the model developed (Thorne, 1998) argue that ethical motivation is to get the certainty level of commitment to action, placing ethical values above other values, and ensure that there is a moral responsibility for obtaining the results of moral goodness. Therefore, at this stage, certain individuals will consider ethical values in relation to other values in the intention to bring up ethical (Jones, 1991).

Furthermore, the decline in ethical intentions began to appear will result in ethical behavior. In a more general model of ethical decision making, such as Rest (1986), Jones (1991), Ajzen (1991), Buchan (2005), and Trevino (1986), which also has been mentioned set of ethical intentions is important (Sweeney et al., 2009). Similar as in the models (Rest's, 1986; Jones, 1991), ethical intentions is the end result which is influenced by ethical judgments. Previous empirical studies show a significant moderating effect on the relationship of ethical climate that is the pressure of social responsibility and the rules or code of ethics between ethical judgment and behavioral intentions (Barnette & Vaicys, 2000).

Main factors of the theory of planned behavior (*TPB*) are the intention to carry out the performance of individual behavior has been determined. Intention assumed to see the motivational factors that influence a behavior, it is an indication of the severity as will attempt to try, or how much effort they planned to certain urgent, in order to achieve such behavior. As a general rule, the stronger the intention to engage in the behavior, are more likely to achieve such performance (Ajzen, 1991). Evidence regarding the relationship between intention and action has been collected with respect to the different type of behavior, with much use of the work that has been done in the framework of the theory of reason and action (*TRA*).

Research on ethical intentions and actions taken, Sweeney et al. (2009) revealed that when there is unethical pressure on the dysfunctional behavior and talks at the top level is significant in the formation of an ethical evaluation, only perceived unethical pressure having an impact on the intention to engage in a behavioral act. The state also found to have a significant impact, as happened in higher ethical evaluations reporting of respondents in the United States and lower intentions to engage in unethical than Irish respondents.

The last stage of the process of ethical decision making is ethical behavior (*ethical behavior*). In this case the individual is involved in an act of the most good as a result of their ethical intentions. Ethical behavior is defined

as one of two things, namely; legally or morally acceptable by a greater society (*community*). Ethical behavior should be developed in the field of accounting and financial reporting is in order to increase public confidence in the relevant information, especially information in order to business decision making, as well as confidence in the activities of the audit of the financial statements. Research conducted by Barlaup et al. (2009), also showed that the results of the goodness of accounting can provide an increased focus on sharpness of ethical judgments and ethical behavior. Ethical behavior can help restore confidence and credibility in the capital market system and reduce the financial reporting contains many irregularities.

Research conducted by Trevino et al. (1986) has recommended that more empirical research is needed related to ethical behavior, but few studies have also argued that ethical behavior is not easy to do in a study due respect to sensitive sources and the difficulty in measuring and the observation that in the absence of biased results (Ampofo, 2004). Theory of Planned Behavior (*TPB*) only provide an estimate of certain determinants of behavior, namely when there are both high motivation and opportunity to process the information, the second; expansion of the *TPB* in order to further clarify the relationship intention to behavior that might provide a way to develop the *TPB* in relation to understanding how attitudes affect the achievement of objectives.

Further research conducted (Emerson et al., 2006) which concluded that overall there was no significant difference, although for some ethical vignette accounting number game (*accounting tricks*) is very similar to the situation of earnings management. In fact, it appears that these practitioners can receive more vignette involving physical harm to individuals and where it is legalized (*though still ethically questionable*). The study gives postulate that accounting practitioners can apply the legal framework is the work done in considering acceptable or not a vignette. Based on the focus on the vignette “accounting tricks”, the study also found no significant difference between the auditors and their institutions than in all types of professional accountants in the sample. They conclude that ethical attitudes of accounting practitioners do not always differ significantly with field specialized.

Ford and Richardson inform clearly, that individual factors are:

“Categories of factors which include the unique factors associated with the individual ethical decision-makers. So this is all variable factors are closely associated with the birth of a person (e.g., nationality, gender, age and so on), and also related to the process of development and social activities of individuals (e.g., personality, behavior attitudes, values, education, religion, occupation and so on), these factors then present the overall experience and outward circumstances which would bring a particular individual is in the process of ethical decision making.

Research (Musbah,2010) investigated individual factors consist of; age, awareness, policy, education, employment, job satisfaction, experience, gender, locus of control, Machiavellianism, organizational commitment, philosophical values, as well as professional associations of age, gender, level of education, experience and moral philosophy.

3. Research Methods and Data Collection

According to Hartono (2004), research design is a plan research structure of the process and the results into valid wherever possible, objective, efficient, and effective. In general, to be performed in this study can be explained in the process of finding solutions to problems after conducting in-depth studies and analyzes the situation. Public accountants in professions are commonly busy in studying and analyzing the problems and therefore visible in the form of a number of research activities as they make decisions in the workplace (Sekaran,

2006). While business research as a systematic managed assessment or investigation which is done critically done based on the objective data, and scientifically proposed to a specific problem, relating to finding answers or solutions (Sekaran, 2006).

Substantially, the study provides the necessary information to guide public accountants make informed decisions in order to solve the problem successfully. The obtained information can be derived from a careful analysis of which can be collected from the first hand. Quantitative data can be obtained from the structured questions, or qualitative answers obtained from broad to specific questions in the interview, or from various previously information resources. The data collection of this research is based on questionnaires back from 90 public accountants.

Furthermore, to identify the factors that are most influence in the development of ethical decision making by local and foreign associate public accountants used the Analytical Hierarchy Process (*AHP*). This method is a decision support tool to assist complex problems solving of many factors associated, with conducting a pairwise comparison of public accountants as the expert judgments regarding to individual factors.

4. Results

Identification of the significance based on results summary of EDM researches from awareness to behavior and total EDM at Table 1. Identification the significance and consistency as follows;

Table 1 Identification the Significance and Consistency

No	EDM – Awareness		EDM – Judgment		EDM – Intention		EDM – Behavior		Total EDM	
1	EDU	0.24653	Phil	0.31757	Phil	0.2118	Phil	0.33284	Phil	0.27903
2	GDR	0.22182	INT	0.2927	NAT	0.19325	GDR	0.3046	GDR	0.24934
3	Phil	0.21664	GDR	0.15508	INT	0.18678	EDU	0.09462	INT	0.19155
4	Age	0.10411	EDU	0.08391	CMD	0.15311	CMD	0.09115	EDU	0.08586
5	NAT	0.09454	NAT	0.07568	GDR	0.13208	INT	0.07486	NAT	0.07574
6	INT	0.05295	Aware	0.02596	OIE	0.0848	SGO	0.05431	CMD	0.05992
7	ProAf	0.04774	CMD	0.0255	EDU	0.02136	NAT	0.02413	Age	0.03363
8	OIE	0.01567	OIE	0.02361	LOC	0.01686	OIE	0.02349	OIE	0.02493
9	CI	0.1045	CI	0.1016	CI	0.038	CI	0.1156	CI	0.0231
10	RI	1.41	RI	1.41	RI	1.41	RI	1.41	RI	1.41
11	CR	0.0741	CR	0.0721	CR	0.027	CR	0.082	CR	0.0164

Notes: EDU = Education; Phil = Philosophy; NAT = Nationality; INT = Intensity; ProAf = Professional Affiliation; OIE = Other Individual Effect; Aware = Awareness; CMD = Cognitive Moral Development; LOC = Locus of Control; SGO = Significant Others; CI = Consistency Index; RI = Random Index of AHP; CR = Consistency Ratio.

As a whole ethical philosophy, gender, and ethical intensity are factors that significantly influence ethical decision making in the majority of researches have been done. Ethical philosophy, gender and ethical intensity are individual factors have consistently been ranked as three priority factors to provide ethical decision making of individuals with a score of significant influences based on the ranked of average normalization according to AHP are 0.27903, 0.24934 and 0.19155. Then the analysis of the consistency ratio (CR) as formulated in $(CR = CI/RI)$; $0.0231/1.41 = 0.0164 < 0.10$ as recommended standard by AHP suggested by Saaty T. L., (Khwanruthai, 2012).

Identification of the significance and consistency AHP based on CPA's pair wise comparison concerning to EDM at Table 2. Identification the Significance and Consistency from Local and Foreign Associate CPA's are as

follows:

Table 2 Identification the Significance and Consistency from Local and Foreign Associate CPA's

Experts	Significant Rank and Consistency							
	1	2	3	4	5	CI	RI	CR
Local CPA's	SC	Idea	Gender	Rel	TI	0.0268	1.46	0.0184
Foreign Associate CPA's	SC	Rel	Idea	TI	Gender	0.0293	1.46	0.0201

Notes: SC = Social Consensus; Idea = Idealism; Rel = Relativism; TI = Temporal Immediacy; CI = Consistency Index; RI = Random Index; CR = Consistency Ratio

Determination of individual factors used in AHP matrix based on the Table 1: Identification on Significance and Consistency. The results AHP excel calculations can be shown on the Table 2: Identification the Significance and Consistency from Local and Foreign Associate CPA's. Local and foreign associate CPA's EDM always based on the individual factor of ethical intensity — social consensus. The second most influence individual factors in EDM was ethical philosophy of idealism in accordance with local CPA's response, and foreign associate CPA's was more relativistic (same consistency measure or CM-value between social consensus and relativism by 9,3316). The third, fourth and fifth factors were feminism-gender, relativism and temporal immediacy according to local CPA's and idealism, temporal immediacy and feminism-gender influence the foreign associate CPA's of EDM. Local CPA's more idealistic individually than foreign associate CPA's. Local CPA's and foreign associate CPA's were varied in EDM. Foreign associate CPA's more considerate the immediate length of time from unethical behavior up to the impact of unethical actions than local CPA's (temporal immediacy)

The excel AHP process (Khwanruthai, 2012) consist of transformation from experts ranks, pair wise comparison matrix and normalization and consistency ratio measurement between local and foreign associate CPA's were presented in Appendix 1–4.

5. Conclusions, Implications and Suggestions

This research is suggesting CPA's to use social consensus, temporal immediacy, idealism and relativism, and gender as the integrated approach in developing ethical decision making (EDM). Other three factors could be developed in supporting to these individual factors, such as education and training. Each condition of country influences national conditions of business organizations, and then become an individual ethical climate in their individual decision makings. Ethics refreshing trainings to individuals within an organizations CPA's or workplace can increase the ethical awareness and cognitive moral development of CPA's.

CPA's organization is very necessary to develop educational programs and training in the field of ethics, particularly the ethical decision making, through the implementation of corporate codes of ethics. Periodic discussion groups of CPA's about ethics should be done routinely in order to establish CPA's communication and understanding each other.

If CPA's in the professional organization will emphasis ethical awareness' step to be developed, they have to focused for ethical education and training programs. Ethical philosophy, moral intensity, gender will dominate the ethical decision making (EDM) development from the stage of ethical judgment, but in the stage of ethical intention the individuals should also develop their moral intensity and ethical climate to retain and promote ethical decision making. Two individual factors ethical philosophy — idealism and feminism-gender CPA's have continuously appointed as instructor in the integrated CPA's EDM trainings.

There are also suggestions that can be given to the weaknesses this research are:

(1) Even more to support the identification of individual factor's significance and consistency, this article use more compilation of empirical research data related to EDM of individuals in business organizations especially in accounting, auditing and taxation.

(2) Electronic data processing by using data another advanced statistical processing software.

(3) Continuous research's with more empirical studies that include factors such as individual and organizational; intensity of the four stages of ethical and unethical decision making (*ethical awareness, ethical considerations, ethical intentions and ethical behavior*).

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Appendix 1

FAIR WISE COMPARISON																			
	<i>Times More Importance Than</i>									<i>Equal</i>	<i>Times Less Importance Than</i>								
	9	8	7	6	5	4	3	2	1		2	3	4	5	6	7	8	9	
Age									X										Age
Age										X									Gender
Age								X											Education
Age								X											Experience
Age											X								Idealism
Age										X									Relativism
Age										X									MC
Age										X									SC
Age									X										TI
Gender									X										Gender
Gender							X												Education
Gender								X											Experience
Gender											X								Idealism
Gender									X										Relativism
Gender								X											MC
Gender										X									SC
Gender								X											TI
Education									X										Education
Education										X									Experience
Education											X								Idealism
Education												X							Relativism
Education													X						MC
Education														X					SC
Education													X						TI
Experience									X										Experience
Experience													X						Idealism
Experience												X							Relativism
Experience											X								MC
Experience												X							SC
Experience											X								TI
Idealism									X										Idealism
Idealism								X											Relativism
Idealism							X												MC
Idealism								X											SC
Idealism							X												TI
Relativism									X										Relativism
Relativism								X											MC
Relativism									X										SC
Relativism								X											TI
MC									X										MC
MC										X									SC
MC								X											TI
SC									X										SC
SC								X											TI
TI									X										TI
R & S									X										R & S
R & S								X											Ethical Code
R & S									X										Ethical Climate
Ethical Code									X										Ethical Code
Ethical Code										X									Ethical Climate
ethical Climate									X										Ethical Climate
R & S = Reward and Sanction										SC = Social Consensus									
MC = Magnitude Consequence										TI = Temporal Immediacy									
Source : Local CPA																			

Comparative Analytical Hierarchy Process on Individual Factors of Ethical Decision Making between Local and Foreign Associate Public Accountants

Appendix 2

FAIR WISE COMPARISON																			
	Times More Importance Than								Equal	Times Less Importance Than									
	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9		
Age									X									Age	
Age												X						Gender	
Age							X											Education	
Age								X										Experience	
Age												X						Idealism	
Age											X							Relativism	
Age										X								MC	
Age											X							SC	
Age										X								TI	
Gender									X									Gender	
Gender				X														Education	
Gender					X													Experience	
Gender									X									Idealism	
Gender								X										Relativism	
Gender							X											MC	
Gender								X										SC	
Gender							X											TI	
Education									X									Education	
Education										X								Experience	
Education														X				Idealism	
Education												X						Relativism	
Education											X							MC	
Education												X						SC	
Education											X							TI	
Experience									X									Experience	
Experience													X					Idealism	
Experience												X						Relativism	
Experience										X								MC	
Experience											X							SC	
Experience												X						TI	
Idealism									X									Idealism	
Idealism								X										Relativism	
Idealism					X													MC	
Idealism								X										SC	
Idealism							X											TI	
Relativism									X									Relativism	
Relativism								X										MC	
Relativism									X									SC	
Relativism								X										TI	
MC									X									MC	
MC										X								SC	
MC									X									TI	
SC									X									SC	
SC								X										TI	
TI									X									TI	
R & S									X									R & S	
R & S									X									Ethical Code	
R & S										X								Ethical Climate	
Ethical Code									X									Ethical Code	
Ethical Code										X								Ethical Climate	
ethical Climate									X									Ethical Climate	
R & S = Reward and Sanction										SC = Social Consensus									
MC = Magnitude Consequence										TI = Temporal Immediacy									
Source : Foreign Associate CPA																			

Comparative Analytical Hierarchy Process on Individual Factors of Ethical Decision Making between Local and Foreign Associate Public Accountants

Appendix 3

PROCES II: Transformation from Expert Ranks (Local CPA)														
	Factors	1	2	3	4	5	6	7	8	9				
		Age	Gender	Education	Experience	Idealism	Relativism	MC	SC	TI				
1	Age	1	0.5	2	2	0.333333	0.5	0.5	0.5	1				
2	Gender		1	3	2	0.333333	1	2	0.5	1				
3	Education			1	0.5	0.2	0.333333	0.333333	0.25	0.25				
4	Experience				1	0.25	0.333333	0.5	0.333333	0.5				
5	Idealism					1	2	3	2	3				
6	Relativism						1	2	1	2				
7	MC							1	0.5	1				
8	SC								1	2				
9	TI									1				
	Total													
PROCES III: Fair wise Comparison Matriks (Local CPA)														
	Factors	1	2	3	4	5	6	7	8	9				
		Age	Gender	Education	Experience	Idealism	Relativism	MC	SC	TI				
1	Age	1	0.5	2	2	0.333333	0.5	0.5	0.5	1				
2	Gender	2	1	3	2	0.333333	1	2	0.5	1				
3	Education	0.5	0.333333	1	0.5	0.2	0.333333	0.333333	0.25	0.25				
4	Experience	0.5	0.5	2	1	0.25	0.333333	0.5	0.333333	0.5				
5	Idealism	3	3	5	4	1	2	3	2	3				
6	Relativism	2	1	3	3	0.5	1	2	1	2				
7	MC	2	0.5	3	2	0.333333	0.5	1	0.5	1				
8	SC	2	2	4	3	0.5	1	2	1	2				
9	TI	1	1	4	2	0.333333	0.5	1	0.5	1				
	Total	14	9.833333	27	19.5	3.783333	7.166667	12.33333	6.583333	11.75				
PROCES IV: Normalization and Consistency Ratio Measurement (Local CPA)														
	Factors	1	2	3	4	5	6	7	8	9				
		Age	Gender	Education	Experience	Idealism	Relativism	MC	SC	TI	TOTAL	AVERAGE	CM	RANK
1	Age	0.071429	0.050847	0.074074	0.102564	0.088106	0.069767	0.040541	0.075949	0.085106	0.658384	0.073154	9.158	8
2	Gender	0.142857	0.101695	0.111111	0.102564	0.088106	0.139535	0.162162	0.075949	0.085106	1.009086	0.112121	9.26995	3
3	Education	0.035714	0.033898	0.037037	0.025641	0.052863	0.046512	0.027027	0.037975	0.021277	0.317944	0.035327	9.15781	9
4	Experience	0.035714	0.050847	0.074074	0.051282	0.066079	0.046512	0.040541	0.050633	0.042553	0.458235	0.050915	9.15955	7
5	Idealism	0.214286	0.305085	0.185185	0.205128	0.264317	0.27907	0.243243	0.303797	0.255319	2.255431	0.250603	9.27254	2
6	Relativism	0.142857	0.101695	0.111111	0.153846	0.132159	0.139535	0.162162	0.151899	0.170213	1.265476	0.140608	9.2568	4
7	MC	0.142857	0.050847	0.111111	0.102564	0.088106	0.069767	0.081081	0.075949	0.085106	0.80739	0.08971	9.17711	6
8	SC	0.142857	0.20339	0.148143	0.153846	0.132159	0.139535	0.162162	0.151899	0.170213	1.404208	0.156023	9.28729	1
9	TI	0.071429	0.101695	0.148143	0.102564	0.088106	0.069767	0.081081	0.075949	0.085106	0.823846	0.091538	9.19299	5
	Total	1	1	1	1	1	1	1	1	1	9	1		
							Consistency Index ----->					CI	0.02683	
							Random Index from AHP ----->					RI	1.46	
							Consistency Ratio ----->					CR	0.01838	

Comparative Analytical Hierarchy Process on Individual Factors of Ethical Decision Making between Local and Foreign Associate Public Accountants

Appendix 4

PROCES II: Transformation from Expert Ranks (Foreign Associate CPA)										
	Factors	1	2	3	4	5	6	7	8	9
		Age	Gender	Education	Experience	Idealism	Relativism	MC	SC	TI
1	Age	1	0.25	3	2	0.25	0.333333	0.5	0.333333	0.5
2	Gender		1	6	5	1	2	3	2	3
3	Education			1	0.5	0.166667	0.25	0.333333	0.25	0.333333
4	Experience				1	0.166667	0.2	0.5	0.2	0.2
5	Idealism					1	2	4	2	3
6	Relativism						1	2	1	2
7	MC							1	0.5	1
8	SC								1	2
9	TI									1
	Total									
PROCES III: Fair wise Comparison Matrics (Foreign Associate CPA)										
	Factors	1	2	3	4	5	6	7	8	9
		Age	Gender	Education	Experience	Idealism	Relativism	MC	SC	TI
1	Age	1	0.25	3	2	0.25	0.333333	0.5	0.333333	0.5
2	Gender	4	1	6	5	1	2	3	2	3
3	Education	0.333333	0.166667	1	0.5	0.166667	0.25	0.333333	0.25	0.333333
4	Experience	0.5	0.2	2	1	0.166667	0.2	0.5	0.2	0.2
5	Idealism	4	1	6	6	1	2	4	2	3
6	Relativism	3	0.5	4	5	0.5	1	2	1	2
7	MC	2	0.333333	3	2	0.25	0.5	1	0.5	1
8	SC	3	0.5	4	5	0.5	1	2	1	2
9	TI	2	0.333333	3	5	0.333333	0.5	1	0.5	1
	Total	19.83333	4.283333	32	31.5	4.166667	7.783333	14.33333	7.783333	13.03333
PROCES IV: Normalization and Consistency Ratio Measurement (Foreign Associate CPA)										
	Factors	1	2	3	4	5	6	7	8	9
		Age	Gender	Education	Experience	Idealism	Relativism	MC	SC	TI
1	Age	0.05042	0.058366	0.09375	0.063492	0.06	0.042827	0.034884	0.042827	0.038363
2	Gender	0.201681	0.233463	0.1875	0.15873	0.24	0.256959	0.209302	0.256959	0.230179
3	Education	0.016807	0.038911	0.03125	0.015873	0.04	0.03212	0.023256	0.03212	0.025575
4	Experience	0.02521	0.046693	0.0625	0.031746	0.04	0.025696	0.034884	0.025696	0.015345
5	Idealism	0.201681	0.233463	0.1875	0.190476	0.24	0.256959	0.27907	0.256959	0.230179
6	Relativism	0.151261	0.116732	0.125	0.15873	0.12	0.12848	0.139535	0.12848	0.153453
7	MC	0.10084	0.077821	0.09375	0.063492	0.06	0.06424	0.069767	0.06424	0.076726
8	SC	0.151261	0.116732	0.125	0.15873	0.12	0.12848	0.139535	0.12848	0.153453
9	TI	0.10084	0.077821	0.09375	0.15873	0.08	0.06424	0.069767	0.06424	0.076726
	Total	1	1	1	1	1	1	1	1	1