ETHICAL REASONING AND THE IMPORTANCE OF ETHICS: A COMPARISON OF NEW ZEALAND AND CHINESE ACCOUNTING STUDENTS

_____

A thesis

submitted in partial fulfilment

of the requirements for the Degree of

Master of Commerce and Management

at

Lincoln University

by

Kun Peng

_____

Lincoln University

2011

Abstract of a thesis submitted in partial fulfilment of the
requirements for the Degree of Master of Commerce and Management.

ETHICAL REASONING AND THE IMPORTANCE OF ETHICS: A COMPARISON OF NEW ZEALAND AND CHINESE ACCOUNTING STUDENTS

by

Kun Peng

Recent business scandals, such as Enron, have highlighted that ethical issues in accounting are not being dealt with properly by accountants and have raised questions about accountants' appreciation of ethics as professionals. Many studies have examined the relationships between individuals' demographic characteristics and their ethical reasoning to better understand the reasons for the presence of questionable practices in accounting. Previous studies have examined how the ethical reasoning level is influenced by nationality, gender and ethics education. However, results of these studies are mixed and criticisms exist.

Based on an approach similar to that used by Tan and Chow (2009), this research surveys final-year undergraduate accounting students from two Chinese universities and two New Zealand universities and groups the participants into three groups: Chinese accounting students in China (CIC), Chinese overseas accounting students studying in New Zealand (COS) and New Zealand accounting students (NZL). Given the increased close relationship between China and New Zealand, this research aims to investigate how nationality, gender and education influence individuals' ethical reasoning levels and how students from these two countries perceive the importance of ethics. This research contributes to the literature by investigating one unique group of students, COS, as they are influenced by their Chinese cultural background, but also influenced by the studying and living experience they received in New Zealand. The comparisons among these three groups provide more insight into the influences of nationality and education on individuals' Ethical Reasoning (ER) levels and the Perceived Importance of Ethics (PIE). In addition, the institutional difference is also examined to find if there are any differences among Chinese universities.

This study found that the combination of Confucianism, Marxism and Capitalism in Chinese society's cultural values leads to lower ER levels but a similar PIE was observed in Chinese students compared with New Zealand students. There is a non-significant difference in ER levels and PIE between COS and CIC, and between COS and NZL. This suggests individuals could be influenced by their cultural background and their experience simultaneouly. No gender difference was found in this study. However, institutional differences between Chinese universities suggests studying in a top university may not necessarily positively correlate with individuals' ER levels.

Keywords: ethical reasoning, gender, nationality, ethics education, perceived importance of ethics, accounting students, China, New Zealand

Acknowledgements

First of all, I would like to extend my gratitude to my main supervisor Professor Gregory A. Liyanarachchi for his constant assistance from the start to the end of this research. Without his help, I would have not been able to complete this research. Without his introduction, I would have not been able to see how wonderful this area of knowledge is. I would also like to thank my associate supervisor, Dr Tracy-Anne De Silva, for the support and guidance from her, and countless hours she had spent editing my work.

My gratitude also extends to Lincoln University and the staff in the Faculty of Commerce Division for support and assistance through the year, and Eric Scott for the time and effort he had spent editing my work. I would also like to thank to all postgraduate fellows for their help and assistance. I am also grateful for the help and kindness from University of Otago, Xiamen University, and Putian University. I would also like to thank all the individuals who took part in my study because, without them this study would not have been completed.

Finally, I would like to thank my parents for all the support and help that they have provide throughout my life and especially my time in New Zealand. I would like to thank my partner Brenda Huang for her support and help. I also would like to express my appreciation to The Bushnells for their support throughout the past years.

Table of Contents

List of Tables

List of Figures

List of Appendices

Abbreviations

ANOVA	Analysis of Variance
CIC	Chinese accounting students in China
COS	Chinese overseas accounting students studying in New Zealand universities
CMD	Cognitive Moral Development Theory
DIT	Defining Issues Test
EEE	Emphasis on Ethics Education
ER	Ethical Reasoning
PIE	Perceived Importance of Ethics
NZL	New Zealand accounting Students

Chapter 1
Introduction

1.1 Background:

1.1.1   The Importance of Ethics

The collapses of Enron and other large businesses during the last decade highlighted the importance of ethics for accountants as professionals. McPhail and Walters (2009) revealed some important characteristics of professionals, including operating in the public interest, the ability to regulate members and actions governed by a code of conduct. However, questions arise when a specific situation is beyond what is directly covered in the code and judgements from accountants are required (Ge & Thomas, 2008; McPhail & Walters, 2009; Rest, 1979; Thorne, 2000). In such cases, appropriate decisions rely on accountants themselves and are affected by the ethics levels of the individuals (Ge & Thomas, 2008; Rest, 1979; Thorne, 1998, 2000). It is thus important to examine what factors influence the ethics levels of individuals in their roles as professional accountants.

1.1.2   Prior Studies

Previous studies have examined different aspect of ethics, such as ethical reasoning, ethical decisions, ethical perception and ethical awareness. This study focuses on ethical reasoning (ER) and the perceived importance of ethics (PIE).

"Ethical reasoning refers to the decision process, an individual uses to judge whether a course of action is ethically or morally appropriate" (Ge & Thomas, 2008, p. 190). ER is necessary for ethical decision making (Rest, 1986) and a higher ER level is positively related to ethical behaviour (Jones, 2009; Kohlberg, 1976; Rest, 1979). PIE in this research refers to personal ethical beliefs. In some studies, PIE has also been referred to as someone's perception of the importance of ethics and social responsibility (Axinn et al., 2004; Singhapakdi et al., 1995). This is different from ethical intensity (such as ethical reasoning), which focuses on the traits of ethical issues. PIE focuses on the traits of individuals. Therefore, a higher PIE shows that the person believes in ethical behaviour more than others.

Prior studies (for example: Armstrong et al., 2003; Lan et al., 2008; Tsui & Windsor, 2001) have tried to connect ER levels and PIE with individuals' demographic characteristics, such as nationality, gender and education. Studies found ER levels are influenced by a variety of factors such as nationality, gender and education (Fleming et al., 2010; Ge & Thomas, 2008;

Jones et al., 2003; Lan et al., 2008; Shaub, 1994; Tsui, 1996; Tsui & Windsor, 2001). However, the results of these studies are mixed suggesting a need to examine the impact of these factors on individuals' ER levels. Previous studies also revealed that the PIE positively influences the ethical intentions of individuals (Singhapakdi et al., 1995) and reported how the gender, education and nationality of individuals influence the PIE (Allmon et al., 1997; Cagle & Baucus, 2006; Forrest & Pritchett, 1990). However, answers about whether and how these characteristics influence individuals' ER levels and PIE still remains inconclusive due to the contradictory results from prior studies.

There is a need to re-examine these relationships due to the contradicting results from previous studies. Previous studies have not yet examined the ER and PIE between China and New Zealand, given the increasing close relationships between these two nations.

1.1.3   The Free Trade Agreement between New Zealand and China

In addition to the contradicting results from prior studies, there is also a lack of studies examining the ER levels and PIE between China and New Zealand, given the increasing close relationship between New Zealand and China, as evident by the enforcement of the Free Trade Agreement between New Zealand and China on October 1, 2008. There has now emerged a need to better understand the ethical aspects of accountants in these two nations. The Free Trade Agreement liberalises and facilitates the trade in goods and services, improves the business environment and promotes cooperation between the two countries in a broad range of economic areas (more information can be found on the New Zealand China Free Trade Agreement website: www.chinafta.govt.nz).

Given the importance of studying ER and PIE, it is necessary to find out whether ER and PIE differ between China and New Zealand. In addition, the expansion of the education industry in New Zealand during last decade has attracted a significant number of Chinese overseas accounting students to study in New Zealand (COS). How does this group of students differ from their native counterparts (Chinese accounting students in China - CIC), and their resident counterparts (New Zealand accounting students - NZL)? A closer investigation of these three groups would provide more insight into ethics studies.

1.2   Research Justification

The increased emphasis on the need for accountants to behave ethically is related to their role as professionals. An important aspect of being a professional is related to serving the public interest. However, accountants continue to face more complex situations as conflicts exist

among their own interest, their clients' interests, the interests of shareholders and the public interest. Accounting codes and principles are not able to cover every situation. Being professionals, accountants have to carefully balance the complexity of different interests and make appropriate decisions. Most often, decisions rely on accountants themselves and are related to the ethics of accountants. Many studies have examined the relationship between individuals' ethics and their demographic characteristics such as gender, nationality and education. Once greater knowledge is obtained about these relationships, further actions could be adopted to promote certain characteristics, which are known to have a positive influence on individuals' ethical levels.

Therefore, aimed at finding evidence of the relationships between demographical characteristics and the ethics of individuals, prior studies have examined how ER and PIE are influenced by nationality, gender and education. However, there are still conceptual gaps in the literature and there are at least four reasons that suggest a need for further research comparing China and other nations.

Firstly, early studies obtained contradicting results about whether females have a higher ER level and a higher PIE than males. It remains unclear whether the focus of gender difference studies should be on the biological differences or differences between the masculine personality and the feminine personality.

Secondly, criticisms can be made of previous cross-cultural studies. Most previous studies adopted the results of a single-nation organisational-level study, with Hofstede's (2001) study, as their study basis. Criticisms arise whether it is relevant to conduct a cross-nation study by relying on the results that came from a study conducted in one big company in the United States of America 30 years ago (Tan & Chow, 2009). The problems of previous cross-cultural studies become more critical for nations with rapid changes in both economy and society, such as China. Many Western studies usually refer to Confucianism as the culture of China and assumed the difference between two nations was the result of differences between Confucianism and Western cultures. However, cultural difference is only one part of the national differences and the culture of China cannot be simplified into Confucianism, especially Mainland China. The cultural value of Mainland China would be more a combination (or contradiction) of Confucianism, Marxism (or Maoism, which attacks Confucianism) and modern market-economy values (Darwin Theory, Law of the Jungle). The conclusion that differences in individuals' ER levels and PIE are the results of cultural differences (Confucianism versus Western) is then questionable. In addition, previous cross-cultural studies also frequently assumed cultural homogeneity and ignored the impact of

immigrants in their samples. It is still unclear though whether immigrants behave more like their native counterparts or their resident counterparts. Clearly, there is a need to carefully interpret the results from comparison between two nations, especially when one of the nations is China.

Thirdly, previous studies focusing on ethics education showed contradicting results about whether ethics education resulted in an improvement in individuals' ER levels and PIE (e.g. Burks et al., 2008; Lau, 2010; Low et al., 2008; McDonald, 2004; Williams & Elson, 2009; Wu, 2003). Arguments exist whether ethics can be taught and whether a favourable improvement is a result of participants selecting the most favourable answers containing the keywords they learnt from courses, such as stakeholder. There is thus a need to re-examine the impact of education on individuals' ER levels and PIE.

Finally, the inclusion of both ER and PIE in this study is justified from two perspectives. First, the difference in ER levels between males and females may not be a true reflection of their ethics levels. The importance of an ethical issue could also affect ethical decision making (Guffey & McCartney, 2008; Jones, 1991). The PIE focuses on the traits of individuals, unlike ethical intensity, which focuses on the traits of ethical issues. Therefore, as Guffey and McCartney (2008) suggested, the PIE will better reflect the status of the individuals' belief system and eliminate the influence from ethical issues themselves. Secondly, Chung et al. (2007) found traces of their assumption that Chinese participants will have contradicting attitudes on ER and PIE as a result of having a combination (or contradiction) of Confucianism, Marxism and Market-Economy values in their society. For example, Chinese participants might show a higher score in PIE (as a result of influence from Marxism), but a lower score of ER level (as a result of pressure from Market-Economy values).

1.3 Research Objectives

The purpose of this study is to investigate the ER and PIE of undergraduate accounting students in China and New Zealand. Specifically, this study examines whether COS show more similar ER levels and PIE with their native counterparts (CIC) or with their resident counterparts (NZL). In other words, are COS more influenced by their backgrounds or by their study experiences? The gender difference on ER and PIE of undergraduate accounting students is also examined. The research objectives of this study are thus, as follows:

1. To determine if the ER levels and PIE are different between Chinese and New Zealand accounting students.

2. To determine if the ER levels and PIE are different between males and females, irrespective of their nationality.

3. To examine how COS differ from CIC and NZL, in terms of their ER levels and PIE.

1.4 Research Methods

The questionnaire survey method is used to collect data. Using questionnaires, this study collects data from final-year undergraduate accounting students from two Chinese universities and two New Zealand universities. Participation in the survey is voluntary and participants remained anonymous. This study considers both the geographical convenience of the researcher and the generalisation of the results when selecting the target universities for conducting the survey. Therefore, the survey is conducted in one First-Class Chinese university and one Second-Class university to better capture the whole population of Chinese accounting students. Two New Zealand universities are selected as the target places to conduct the survey and New Zealand sample of this study should be able to reflect the whole population of New Zealand accounting students because there is minimal difference in what is taught in accounting courses between New Zealand universities (Liyanarachchi & Newdick, 2009).

The questionnaire contains the instrument developed by Welton et al. (1994) to measure ethical reasoning level, an instrument developed by the researcher to measure PIE and an instrument developed by the researcher to ask participants how much their university courses emphasise ethics education (EEE). After approval from the Lincoln University Human Ethics Committee is granted, the questionnaires are distributed to students during their class time with help from lecturers and tutors.

The returned useable questionnaires[1] first go through the grouping process first. Overseas students studying in New Zealand universities will be excluded from this study if they are not from China. The remaining questionnaires are classified into CIC, COS and NZL based on their nationalities and education experience. Analysis will be conducted to examine the differences in ER levels and PIE among these three groups and between genders irrespective of their nationalities to test the hypotheses developed to achieve the objectives of this study.

In addition, two further analyses will be conducted to provide more insight into the influence of demographic characteristics. A comparison of EEE between participants from New Zealand universities and participants from Chinese universities aims to find out whether there

---

[1] The process used to check the consistency of returned questionnaires is discussed in Chapter 3.

is any difference on the emphasis of ethics education between New Zealand universities and Chinese universities. Participants are also further grouped into different university institutions to find out whether there is any institutional difference in individuals' ER levels and PIE.

1.5   Contribution

This study aims to make several contributions. In the examination of the ER levels and PIE of participants from New Zealand and China, this study contributes to the body of knowledge about the influence of demographic characteristics on individuals' ER levels and PIE. A closer examination of COS studying in New Zealand universities in this study should provide better insights into how cultural background and study experience could influence individuals' ER levels and PIE. Gender difference is also examined to add evidence from Chinese and New Zealand perspectives. The institutional differences in ER levels and PIE are examined in this study to explore the influence of studying in a top university.

This study, as discussed in Chapter Four, tries to find whether there is a significant difference in ER levels between CIC and NZL, as a result of national differences between the two nations. In addition, this study examine whether there is an inconsistency on ER levels and PIE from CIC, in order to find the evidence to support the assumption of a disconnection between ethical beliefs of and ethical behaviours by Chinese participants due to the influence from the cultural values of their society. The examination of COS in this study could also examine how cultural background and study experiences could influence individuals' ethics. The result of gender difference examination could suggest whether the focus of gender difference studies should be on the difference between the personalities (the masculine versus the feminine personality) or the biological differences (males versus females).

The results of this study would also find the relationship between students who believe their university courses emphasise more on ethics education, and students' ethical personal beliefs, by examining the relationship between EEE and PIE. The examination of institutional differences in this study may find out whether there is a positive relationship between individuals' ER levels and studying in a top university.

1.6   Structure of the Thesis

The remainder of this thesis is presented in four chapters. Chapter Two reviews and discusses prior studies related to ER and PIE. Based on the literature review, Chapter Three conceptualises the relationships of individuals' demographic characteristics and ER and PIE and develops hypotheses. Chapter Four explains the research method used in this study.

Chapter Five presents and discusses the findings of this study. Chapter Six provides the conclusions and limitations of this study and recommends areas of future research. There are six appendices attached at the end of this thesis including a copy of questionnaire and full statistical test results.

Chapter 2

Literature Review

2.1 Introduction

The importance of examining the ER levels and PIE between Chinese and New Zealand accounting students was highlighted in chapter one. Although prior studies have examined the influence of individuals' demographic characteristics in their ER levels and PIE, results of these studies have reported contradicting findings. This chapter reviews the literature regarding ER and PIE. Theories that have been used in prior studies are also discussed including Kohlberg's Cognitive Moral Development Theory (Kohlberg, 1976). Specifically, this chapter first discusses the ethics and the accounting profession in Section 2.2 to highlight the importance of ethics to accounting. Section 2.3 introduces ER and Kohlberg's Cognitive Moral Development Theory and Section 2.4 introduces PIE. Section 2.5 introduces the unique research opportunity in China, and the remainder of this chapter (Section 2.6 to Section 2.9) reviews the literature regarding nationality, gender, ethics education and other factors respectively.

2.2 Ethics and the Accounting Profession

2.2.1 Ethics in Accounting and the Accounting Profession

The general public, accounting students and accountants all seem to agree that ethics is one of most important personal qualities of accountants (Fatt, 1995). Ethics principles, such as independence, integrity, objectivity and responsibility have been developed for accountants to follow. Normative ethical theories are introduced to accounting students to help them apply ethics to accounting (Armstrong, 1993).

People often mistakenly think being ethical is about complying with rules, laws or standards (Mele, 2005). However, ethics relates to moral responsibility to a public good. Acting ethically is more than not breaching rules, laws or standards (Velayutham, 2003). The theme of the current business world is that unethical behaviours will damage businesses (Krchmcyer, 2007). Businesses will be damaged from unethical activities because unethical activities will cause the loss of reputation and loss of operating licence. Some scholars even argue that ethical behaviour not only relate to the survival of businesses, but also help businesses to achieve sustainable success (Veiga, 2004).

However, the importance of ethics has alarmed both accountants and educators (Armstrong, 1987) with the repeated occurrence of business scandals. Since the 1980s, many western universities have started to include ethics teaching in the accounting curriculum (Armstrong, 1993). The importance of ethics is also related to accounting being seen as a profession. Frankel (1989) commented that professions have a strong ethical nature, and professionals comprise a group of ethical individuals who have widely shared goals and similar beliefs about how to use appropriate approaches to achieve those goals. There are characteristics of a profession, such as skill based on theoretical knowledge, licence to practice and professional association, an extensive period of education and training, self-regulation, code of professional conduct and commitment to public interest, which classify one's occupation as a profession as distinct from other occupations (Duska & Duska, 2003; McPhail & Walters, 2009).

When applying these characteristics to accounting, concerns arise in the commitment to the public interest. The accounting profession has always claimed that it was operating in the interest of the public, not for a specific group of investors or companies (McPhail & Walters, 2009). However, doing this is much more difficult than saying so. It is simple to say, when a conflict exists between self-interest and public interest, accountants need to act ethically in the interest of the public. However, there is a common problem for professions with an adversarial role like accounting. Unlike other professions, such as doctors, accountants more frequently face complex dilemmas and have to carefully balance the interests of their clients, shareholders and the interests of the public.

Serving the public interest has often been narrowed down to complying with the accounting code of conduct or accounting standards, which provide a positive set of statements and guidelines for accountants about what should or should not be done by a professional accountant. Rules or standards cannot tell an accountant how to react in every case: principles provide guidelines, but each situation is different. Lere (2003) argued that decision making is about more than following the accounting codes of conduct, because there were other considerations and the decision making was more complex than just selecting an ethical action from the codes. It is possible some situations are beyond the code. In some extreme but possible situations, the public benefits more only when the code is breached[2].

---

[2] A survey conducted in 1995 found that a significant proportion (30% to 47%, depending on the cases) of CPAs thought simply following the rules or standards may not be the best ethical behaviours in some specific cases (Adams et al., 1995).

Accountants should call themselves professionals only when they make ethical decisions and act in the public interest. Appropriate decisions rely on the ethics of accountants when they face a complex situation with a contradiction of a variety of interests and the situation is not covered in the accounting code or accounting standards. This establishes the fact that ethics have a vital role in accounting and need to be dealt with properly.

2.2.2 Business Scandals

However, business scandals through history have highlighted that ethical issues in accounting have not been dealt with properly and consequently questions have been raised about accountants' appreciation of ethics. History is repeating itself with the continuing exposure of business scandals, from the 1980s saving and loan crisis, the collapse of Bank of Credit and Commerce International, to Xerox, Enron, and AOL during the 2000s, and to the most recent collapse of Lehman Brothers. All of these business scandals point out that accountants (and other corporate leaders) tend to act in their self-interest. Those scandals resulted in accounting professions coming under the public spotlight.

The introduction of the Sarbanes-Oxley Act in the United States of America in 2002 was a step taken to prevent future scandals. Despite the negative effects of such an act including extra compliance and reporting costs for businesses, some fundamental arguments exist on using regulations to prevent scandals. It is generally believed that the failure of Enron was not about the failure of or loopholes in the accounting system, but the failure of the ethics of the managers involved. Loophole-seeking always exists to satisfy individuals' personal interests, even in the toughest regulatory system. Low, Davey and Hooper (2008) concluded further that the improvement in laws and accounting standards could not deter, nor prevent, future scandals.

On the other hand, what could be more important and useful for preventing future scandals is to improve the ethical level of accountants. Prior studies suggest individuals' demographic characteristics could influence their ethics (Loo, 2003; Tsui & Windsor, 2001; Wu, 2003). This explains the increasing emphasis of studies on the relationship between ethics and the demographic characteristic of individuals. Once greater knowledge is obtained about these relationships, further actions could be adopted to promote certain characteristics, which are known to have a positive influence on individuals' ethical levels. For example, if studies show that ethics education can improve the ethics of accountants, education providers and accounting professional bodies may consider increasing the emphasis on ethics education in the accounting curriculum.

Focused on the relationships between ethics and demographic characteristics of individuals, prior studies have examined how nationality, gender and education influence ethical reasoning and the perceived importance of ethics. The remainder of this chapter reviews the literature in this field.

2.3 ER and Kohlberg's Cognitive Moral Development Theory

"Ethical reasoning refers to the decision process, an individual uses to judge whether a course of action is ethically or morally appropriate" (Ge & Thomas, 2008, p190). ER is important because it is necessary for ethical decision making (Rest, 1986) and a higher ER level is positively related to ethical behaviours (Jones, 2009; Kohlberg, 1976; Rest, 1979).

One main theory that provides the basis for most empirical studies on ethical decision making is Kohlberg's (1976) Cognitive Moral Development Theory (CMD). Kohlberg (1976) classified individuals' ER into three levels: the pre-conventional level (focus on self); the conventional level (focus on the group); or the post-conventional level (focus on inner self).

People at the pre-conventional level will make decisions based on the rewards and punishments resulting from their actions (Kohlberg. 1976). That is to say, individuals at this level will judge whether to take a particular action by the direct consequences of such an action (Kohlberg, 1976). Individuals at stage one (Obedience and punishment orientation) of CMD will perceive an action as morally wrong if there is a punishment resulting from such an action (Kohlberg, 1976). An individual at stage two (Self-interest orientation) of CMD will define an action as right if such an action is in this individual's best interest (Kohlberg, 1976).

Individuals at the conventional level will behave following the views and expectations from their relatives and society (Kohlberg, 1976). Individuals at stage three (interpersonal accord and conformity driven) of CMD will evaluate an action based on such an action's consequences in their relationships with others, such as respect from others (Kohlberg, 1976). Individuals at stage four (authority and social-order maintaining orientation) of CMD will follow laws and rules of society, because they are important to maintain a functioning society (Kohlberg, 1976).

At the post-conventional level, individuals' behaviours are guided by their own inner principles, such as life, liberty and justice (Kohlberg, 1976). Individuals at stage five (social contract orientation) of CMD will act to benefit the greatest number of people in the society (Kohlberg, 1976). Individuals at stage six (universal ethical orientation) of CMD will take an action because it is right (Kohlberg, 1976).

Individuals facing ethical dilemmas will make decisions based on their stages of moral development (their ER level) (Rest, 1979). Individuals will take a more ethical action if they are in a higher stage (the post-conventional level). Prior studies, including Armstrong (1987), Fleming et al. (2010), Ge and Thomas (2008), Jones (2009), Rest (1979) and Tsui and Windsor (2001)[3], have used Kohlberg's (1976) CMD theory to examine ethical decision making.

In the examination of the relationship between individuals' demographical characteristics and their ER levels, prior studies revealed that characteristics such as nationality (Ge & Thomas, 2008; Tsui & Windsor, 2001), gender (Franke et al., 1997; Glover et al., 2002; Loo, 2003), and ethics education (Fulmer & Cargile, 1987; Shaub, 1994; Wu, 2003), could correlate to individuals' ER levels. Sections 2.6, 2.7 and 2.8 discuss these studies in more detail.

2.4 Perceived Importance of Ethics (PIE)

PIE in this research refers to the ethical beliefs of individuals. In some studies, PIE has also been referred to as someone's perception about the importance of ethics and social responsibility (e.g. Singhapakdi et al., 1995; Axinn et al., 2004).

Individuals' ER levels could be influenced by the nature of ethical issues (Guffey and McCartney, 2008; Jones, 1991), especially in the discussion of gender difference. As summarised by Loo (2003), different responses in ethical issues between males and females could be caused by the nature of ethical situations, rather than by the different ethics traits between genders. For example, ethical reasoning levels differ between genders if the ethical issue individuals faced is "grey" (Glover et al., 2002). PIE, on the other hand, focuses on the belief system of individuals, rather than the nature of the ethical issues themselves (Guffey & McCartney, 2008). Individuals may act ethically if they believe that ethical behaviours are very important and are related to the success of a business. How individuals' demographic characteristics influence their PIE requires a closer examination.

2.5 The Unique Research Opportunities in China

The increasing importance of China does not only relate to its rapid developing economy, but also its effort to harmonise its national laws and accounting standards with international professional bodies. However, how Chinese accountants differ to western accountants in ER

---

[3] However, criticisms in Kohlberg's (1976) Cognitive Moral Development Theory exist. One criticism is that Kohlberg's CMD theory focuses on justice, and excludes other values, such as caring (Gilligan, 1977). Kohlberg's CMD theory was developed based on results from male participants only, and Gilligan (1977) argued that Kohlberg's CMD theory may not be suitable to describe females. Lastly, Harkness et al. (1981) questioned whether Kohlberg's CMD theory could apply to different nations.

levels and PIE remains unclear, given the national differences, including the cultural differences between China and other western nations. Although prior studies have found there were differences in ER levels and PIE between Chinese participants and participants from other nations (reviews in Section 2.6), there is a need to carefully interpret these findings rather than simply concluding there is a difference between Confucianism and Western cultural values.

In addition, Chung et al. (2007) suggested a disconnection between ethical beliefs and ethical behaviours could be observed in Chinese youths and such disconnection could be due to the cultural changes that have been observed in China during the past century. A lot of previous cross-nation comparisons studies referred to Confucianism as the cultural value of China. However, the cultural values of China have been changing. Traditional China had Confucianism as its cultural value. Before the 20th century, the cultural value of China could be classified as Confucianism. The characteristics of Confucianism were identified as diligence, perseverance, filial piety, thriftiness, respect for authority, value of collective effort, harmony, humility, and magnanimous behaviours (Tan & Chee, 2005). Confucian tradition tends to emphasise humility over personal gain (Ding, 2006). Even in modern Chinese business practices, the emphasis of "face" and "relationship" still show traits from Confucianism (Ang & Leong, 2000).

However, investigation of the modern history of China, especially after 1949, tells a different story. After the founding of the Peoples Republic of China in 1949, the cultural value of China shifted to Marxism and its Chinese version, Maoism. Marxism emphasises economic equality and social welfare. Maoism, which is the development of Marxism, is against the Confucianism. Attack on Confucianism and massive changes in Chinese cultural values were observed especially during the "Cultural Revolution" (1966 to 1976).

Since 1978, the reform and opening-up policy of China has boosted the economic development of China. Rapid changes can be observed in the social and cultural areas of China. Capitalism and the Market economic values play an important role in Chinese cultural values. The problem with the Market economic value is that, in China, Darwin's theory (Law of the jungle) still dominates, whereas developed western countries focus more on humanity[4]. In China, the pressures to be advanced and successful (or pressure to survive) exist across different levels, from the whole nation to each individual. As a result, such pressure affects

---

[4] This then explains why this study assumes market economy value has a negative influence on individuals' ethics. The market economy value in China would refer, more appropriately, to the cultural values of 19th and early 20th century western countries.

the attitudes and traits of Chinese people. It then could be expected that the pursuit of personal gain (money, rank) could be at the sacrifice of others.

It cannot be said that the cultural value is now personal gain over others, but what could be suggested is that the cultural value of China are a complex combination of the above mentioned three values (see Figure 2.1).
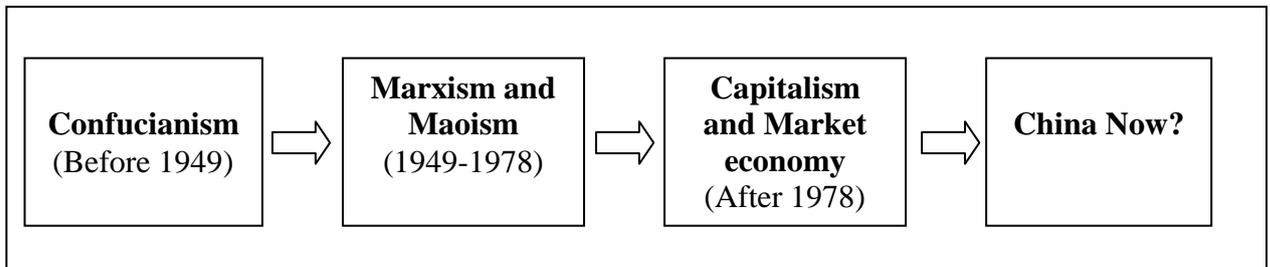
Figure 2.1 Cultural Changes in China

The disconnection between ethical beliefs and ethical behaviours in Chinese youths (Chung et al., 2007) could be explained as follows. Chinese youths still receive Marxist education from school and from society. When asked whether they think ethics are important or not, they will subconsciously answer "yes they are important". The influence of Confucianism, the emphasis on humility, will also lead them to select those most favourable answers because of the worry of losing faces. However, when asked for their decisions, they may choose unethical options and options leading to personal gain, as a result of pressures from the Market economy (for example, unemployment). A closer examination of the PIE of Chinese students will be essential to add value to this field. The literature provides the evidence of a relationship between individuals' demographic characteristics and PIE. A detailed review of the literature will be presented in following sections.

2.6 Prior Studies – Nationality

A number of prior studies have examined the difference in ER levels and PIE among individuals from different nations.

2.6.1 ER and Nationality

Previous studies focused on the ethics of accountants or accounting students collected data from several countries and tried to link the ethical behaviour with culture or some characteristics of a nation (e.g. Fleming et al., 2010; Ge & Thomas, 2008; Tsui & Windsor, 2001). Studies found that Chinese participants showed a lower ER level than Canadian (Ge &

Thomas, 2008), Australian (Tsui, & Windsor, 2001) or American (Fleming et al., 2010) participants.

Tsui and Windsor (2001) examined the relationship between cultural differences and ER based on Hofstede's (2001) work on culture and Kohlberg's (1976) Cognitive Moral Development Theory. Tsui and Windsor employed Rest's (1979) Defining Issues Test to examine 48 Australian auditors and 75 Chinese auditors, including auditors from Mainland China and Hong Kong (Tsui & Windsor, 2001). Their results showed that Chinese auditors had a significantly lower ER level than Australian auditors and suggested such differences resulted from cultural differences between two nations (Tsui & Windsor, 2001).

Similarly, Ge and Thomas (2008) incorporated the moral development approach used in Tsui and Windsor's (2001) study, with a multidimensional ethics scale to compare the ER and decisions of Chinese and Canadian accounting students. The data were collected from 64 Chinese students and 71 Canadian students. Ge and Thomas (2008) concluded that Canadian students had a higher ER level and used a post-conventional moral development approach more frequently to make more ethical decisions than their Chinese counterparts.

A more recent study was conducted by Fleming et al. (2010). Using Thorne's (2000) Accounting Ethical Dilemma Instrument (AEDI), Fleming et al. (2010) compared the ER level among 135 Chinese accounting students, 96 Chinese experienced auditors and 126 U.S. accounting students. The results of their study indicated that Chinese accounting students and Chinese experienced auditors had a significant lower ER level than American accounting students. Fleming et al. (2010) also suggested that differences in ER could depend on the nature of ethical dilemmas.

2.6.2 PIE and Nationality

Similarly, individuals' values and ethics beliefs would differ if they are raised in different nations (England, 1975). Previous studies indicated that the ethical beliefs and acceptance of unethical behaviour differed between different cultures (Ahmed et al., 2003; Rashid & Ho, 2003). In other words, the literature suggests individuals from different countries would have a different PIE.

When comparing the ethical ideologies among the United States of America, Malaysia and Ukraine using MBA students, Axinn et al. (2004) concluded that cultures will influence the perception of ethics regarding what is the business role in society and how effective are businesses following ethical standards.

McDonald and Kan (1997) conducted a study in Hong Kong using graduate MBA students and general business respondents. They compared the local Hong Kong with foreigners in Hong Kong. There was a significant difference in ethical perceptions between Hong Kong locals and foreigners in Hong Kong. Foreigners appeared to have a higher ethical perception.

Using the instrument developed by Singhapadi et al. (1995), Burnaz, Ataken, Topcu and Singhapadi (2009) conducted a study to examine the perceived importance of ethics among Turkish, Thai and American businesspeople. They found Turkish business people perceived ethics to be less important for business success than Thai and American business people.

Shafer, Fukukawa and Lee (2006) examined the ethical perceptions of managers from China and the United States of America. The results of their study showed that, although there was significant difference in ethical perceptions between two nations, such differences did not exist in all situations and the pattern of some differences was contradictory. For example, their study indicated Chinese managers believed the stockholder's interest was more important than other considerations, but also indicated Chinese managers believed that ethics and social responsibility were necessary for businesses to survive in the long-term (Shafer et al., 2006).

In a study conducted in Australia, Israel, Taiwan and the United States of America to test the ethical perceptions of university students, Lin (1999) reported that there were both similarities and differences in the ethical values among students from these four nations. This study also found that Taiwanese showed different ethical perceptions from the other three nationalities, but the ethical perceptions of Australians and Americans were similar (Lin, 1999). Such results suggested an influence of culture on ethical perception.

Similarly, Allmon, Chen, Pritchett and Forrest (1997) investigated the perceived importance of ethics by business students from Australia, Taiwan and the United States. Their results indicated there was significant difference in ethical perception among those nations.

Chung et al. (2007) examined 842 undergraduate business students from the United States of America, China, Japan and the Republic of Korea. This examination focused on the importance of ethics in business strategy and personal behaviour. Their results showed that differences existed between American and the three Asian countries. However, their results also indicated differences existed among the three Asian countries. Many studies recognised that these three countries have the same cultural value, namely Confucianism. The results of Chung et al.'s (2007) study demonstrated differences existed among these three countries. Such differences could be explained by the different recent historical experiences.

Sarwono and Armstrong (2001) examined the effects of micro-cultural differences on ethical perceptions. The results of their study identified there were significant differences in ethical perceptions among three micro-cultures in Indonesia, namely Javanese, Batak and Indonesian-Chinese. Their results further supported the argument about the influence of immigrants.

2.6.3 Discussion

From Section 2.6.1, there is strong evidence to support Hofstede's (2001) work on culture: an individual in a collectivist, high power distance and long-term orientation society would always show a lower ER level (Blodgett et al., 2001; Tsui, 1996; Tsui & Windsor, 2001). However, there are criticisms about the three assumptions that were frequently adopted by prior studies, namely the assumptions of stability of cultures, of national differences, and culture homogeneity.

Tan and Chow (2009) argued that prior cross-cultural studies just assessed the "generalizability of organizational-level phenomena first derived from single-nation studies" (p.198), practically Hofstede's (2001) study which was conducted 30 years ago. The criticism of such cross-cultural studies goes further when the target of the study is China. Cross-cultural studies have frequently used Taiwan, Hong Kong and Singapore as proxies for Mainland China, because they have a similar philosophy, namely Confucianism. However, studies found that the ethical behaviours in Hong Kong, Taiwan, Singapore and Mainland China were significantly different from each other (Shenkar & Ronen, 1987). In addition, the culture of China is not constant throughout time, especially since China shifted to a market economy in 1979 (Harvey, 1999)[5]. This, therefore, raises a question of how can a study conducted in the 1980s still be valid and be used as the basis for other later studies.

Partly due to the measurement difficulties of culture, many cross-cultural studies have mixed up culture with nationality and have assumed that the nationality of the participants would represent the culture of the participants (McDonald, 2000). However, this assumption is not always valid. Steward et al. (2010) viewed culture as one of the major contexts to define a nation and, from Kostova's (1997) perspective, a nation could also be determined by economic, political, social and historical factors. Peterson and Smith (1997) modelled the nation using 10 determinants including language, religion, economic system, industrialisation, major industry, climate and topography. Studies from other business fields supported the argument that nationality determinants affected the individual's ability to make ethical

---

[5] This matter was discussed further in Section 2.5.

decisions (Campbell, 2007; Harbison & Myers, 1959; Jones, 1999; Shenkar & von Gilnow, 1994). For example, individuals from China and the United States of America, two countries that have different legal and political systems and different industrialisation levels, would follow different traits when making decisions (Shenkar & von Gilnow, 1994). Harbison and Myers (1959) also claimed that individuals' beliefs were related to the level of industrial development. Therefore, identifying a participant's nationality does not automatically allocate this participant to a particular culture. Cultural differences may be only one part of the national differences. Clearly, when prior studies examine the nationality of participants, it is questionable to link the results to the culture, because one is unsure whether the results are influenced by nationality differences or solely by cultural differences.

Another criticism of the cross-cultural studies is the assumption of cultural homogeneity, which refers to having culture without diversity (Tan, 2002; Tan & Chow, 2009; Tung, 2008; Tung & Baumann, 2009). Immigrants from other countries will reduce cultural differences between nations and create sub-cultures in a nation (Tan & Chow, 2009). Previous studies comparing differences between China and the United States of America, Australia or Canada by assuming the culture homogeneity are, therefore, questionable. The way these studies dismiss the presence of Chinese immigrants, who might still live according to their Chinese culture in their Western sample has been criticised (Tan & Chow, 2009; Tung, 2008). In other words, studies that aimed to compare cultural difference were in fact comparing Chinese culture with a "culture" which contains Chinese culture, especially when these studies measured culture only by asking the nationality of the participants. For example, Tan (2002) found participants working abroad had similar decision making characteristics to participants in resident countries, but significantly differed from participants in their home countries. In contrast, Tan and Chow (2009) and Tung and Baumann (2009) found overseas Chinese were more like Chinese in China than Caucasians in the United States of America, Australia and Canada.

Thus, when examining individuals from China, it is important to recognise the changes in cultural values in Chinese society (see Section 2.5) and how those changes could influence individuals' ER levels and PIE. In addition, the cultural difference is only a part of national difference. National differences would also influence the individual's ER levels and PIE from many dimensions including power distance, individualism, long/short term orientation, uncertainty avoidance and masculinity (Fleming et al., 2010; Ge & Thomas, 2008; Hofstede, 2001; Tsui & Windsor, 2001). Other national differences, such as economic conditions,

industrialisation level and legal systems, would also influence individuals' ER levels and PIE (Campbell, 2007; Harbison & Myers, 1959; Jones, 1999; Shenkar & von Glinow, 1994).

When focusing on immigrants, it is still unclear whether influences from societal-factors of their home countries exist. Studies have found contradictory results whether individuals' ER and PIE were determined more by their home countries or their resident countries (Tan, 2002; Tan & Chow, 2009; Tung & Baumann, 2009). In this study, one question arises whether Chinese overseas students studying are influenced more by societal-factors of their home country or by those of their resident countries (see Figure 2.2 below).
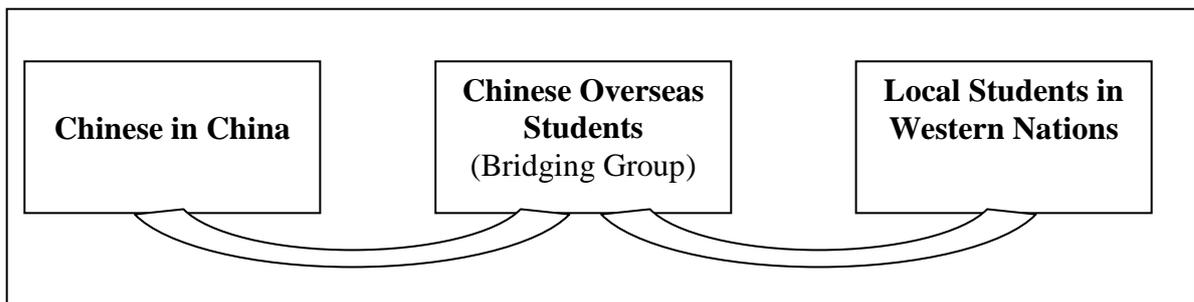
Figure 2.2 The Bridging Group between Nations

2.7   Prior Studies – Gender

In a discussion of gender differences, Loo (2003) summarised three approaches that have been used in literature to explain why such differences exist. First, gender differences can be explained by the gender socialisation theory (Loo, 2003). The gender socialisation theory (Betz et al., 1989; Franke et al., 1997; Gammie & Gammie, 2009; Myyry & Helkama, 2002; Sidani et al., 2009) suggests that gender differences are the result of the different experiences and social expectations males and females face. Secondly, some studies have proposed that gender differences are caused by difference in the ethical frameworks females and males use to make decisions (e.g., Harris, 1989; Loo, 2003; Schminke & Ambrose, 1997). Females make judgements using a care-based approach, whereas males use a justice-based approach (Loo, 2003; Myyra & Helkama, 2002; Schminke & Ambrose, 1997). Finally, a number of studies concluded that gender differences were determined by ethical situations (Glover et al., 2002; Hoffman, 1998; Kaplan et al., 2009; Loo, 2003). For example, Kaplan et al. (2009) found that gender differences changed from significant to non-significant after the intervention of fraud reporting channels changed from anonymous to non-anonymous. Prior studies also found that males made more ethical decisions when the scenario was extreme and clear, but made less ethical decisions when there were "grey" areas in the scenarios (Glover et al., 2002). Hoffman (1998) found that decision making processes were conditional on ethical

issues and strategic situations and gender differences were influenced by the nature of the ethical situations.

From an empirical point of view, prior studies examining gender differences have shown contradicting results. The following section will review the studies focused on ER levels and PIE.

2.7.1 ER and Gender

Prior studies have proposed that female participants' ER level was higher than their male counterparts. An early study by Mason & Mudrack (1996) examined gender socialisation theory and investigated 308 individuals using questionnaires. Their results showed that gender differences existed in the group of employees, but no significant gender differences were found among the group of individuals who did not have a full time job. This finding contrasted with the occupational socialisation theory, which suggested gender similarity in employees. Mason and Mudrack's (1996) findings suggests there were gender differences among employees. Valentine et al. (2009) further examined employees in one occupation. Valentine et al. (2009) collected 781 questionnaires containing ethical dilemmas from employees in a large health science centre and found, evaluating the results using multivariate and univariate statistical modelling, that females were generally more ethical than males. They further found that ethical intentions increased as women got older and that women in supervisory roles showed higher altruism (Valentine et al., 2009).

Prior studies also examined the gender differences among business students. Betz et al. (1989) selected 213 business students from one American university. They used both open questions and case scenarios to examine the students' career goals and their willingness to act unethically. Their results showed male students' goals were money and rank, whereas females focused more on relationships and altruism. Their results showed that males were twice as willing to act unethically (Betz et al., 1989). Similarly, Glover et al. (2002) examined 367 junior and senior business students from a large western university using a laboratory format and a decision exercise. Glover et al. (2002) found female students were more likely to act ethically than their male counterparts in all four case scenarios. Their results also revealed that ethical behaviours were positively correlated with work experience and the high level of need for achievement (Glover et al., 2002).

Herington and Weaven (2008) used the Defining Issues Test (DIT, developed by Rest, 1979) with cluster analysis to test the impact of gender, age, work experience and ethics training on ER. From a sample of 232 business undergraduate and postgraduate students in an Australian

university, they not only found females had higher ER levels, but also females had similar and closer ER levels across the whole female group (Herington & Weaven, 2008). From their results, they suggested that the ER of males was affected by a number of unidentified factors that did not influence females in the same way.

Prior studies also suggest gender difference exist through time. Loo (2003) re-examined the data from his three earlier studies in 1996, 2001 and 2002. All three studies selected management undergraduates from a Canadian liberal university in different years. Three studies used two different methods: ten self-report vignettes for the 1996 study and 30-item response scale in the 2001 and 2002 studies, but all studies concluded there were difference in ER levels between genders (Loo, 2003; 1996, 2001, 2002).

However, other studies have examined different groups of individuals and suggested the differences of ER levels between genders were not significant. Those previous studies examined managers (Kidwell et al., 1987), MBA students (Lan et al., 2010), accounting students (Geiger & O'Connell, 1998), and CPAs (Abdolmohammadi & Ariail, 2009) and found that gender did not have a significant effect on ethics. Kidwell et al. (1987) surveyed 50 male and 50 female managers using self-reporting questionnaires to find out whether differences existed between ethical decisions made by males and females. The results of their study proposed no gender difference in 16 out of 17 ethical decision situations and that ethical decision making was correlated positively with years of work experience (Kidwell et al., 1987).

Similarly, Abdolmohannadi and Ariail (2009) surveyed 314 CPAs from Georgia, the United States of America, using the Defining Issues Test and found that gender did not have a significant effect on the ethical reasoning level. Abdolmohannadi and Ariail (2009) provided similar suggestion as Kidwell et al. (1987) that differences in ethical reasoning level resulted from other variables, such as rank.

Business students showed a similar pattern in gender difference as found in previous studies. Lan et al. (2010) examined 108 MBA students in a Canadian university. This study employed the Schwartz Value Questionnaire and the Defining Issues Test and found there was no significant difference in the ER level between genders (Lan et al., 2010). However, their results did show a significant gender difference on the clusters of related values between the two genders (Lan et al., 2010). This finding was consistent with an earlier study (Lan et al., 2008).

Geiger and O'Connell (1998) examined accounting students' responses to both academic and business ethical dilemmas. Geiger and O'Connell (1998) found there was no gender difference of ethical perceptions and ethical intentions between 158 upper-level accounting students from two public American universities. Their results also indicated that participants in the study consistently believed they would act less ethically in business dilemmas than in academic dilemmas (Geiger & O'Connell, 1998). The authors also claimed that based on their sample, ethics courses did not have a significant impact on the ethical position either in business dilemmas or in academic dilemmas (Geiger & O'Connell, 1998). Another remarkable early study was the comparison between business students and law students (McCabe et al., 1991). McCabe et al. (1991) compared the values and ethical decision making behaviours of 318 business students and 481 law students using the Terminal Values Scale and ethical decision making vignettes. The results showed that gender differences existed in the law students but not in the business students (McCabe et al., 1991). No significant gender difference in the business students found in McCabe et al.'s (1991) study suggests the focus of gender difference studies should not be biological gender differences, as discussed in Section 2.7.3.

2.7.2   PIE and Gender

The previous section showed that prior studies examining the relationship between ER levels and gender have reported contradictory results. Similarly, such contradictions can be found in prior studies examining individuals' perceptions about the importance of ethics.

Two studies examined the gender difference in PIE using large samples and suggested gender difference existed. Franke et al. (1997) collected data from over 20,000 respondents from 66 sample groups, including business students and practitioners and found that females had higher levels of ethical perception than males. Another remarkable study with a large sample (Beltramini, Peterson and Kozmetsky, 1984) recruited 2,856 college students from 28 different universities in the United States of America. After carefully distributing survey forms to cover different levels of undergraduate business students, arts or social science students and engineering or natural science students, they found females were consistently more concerned about ethical issues than males and business students were more concerned about ethical issues than students in other fields.

Results of prior studies also suggest such a gender difference in perception exists across nations. Ahmad and Seet (2001) found that females perceived ethics and social responsibility behaviours as more important than males after examining 212 SME (small and medium

enterprises) founders-owners in Malaysia. Lamsa, Vehkapera, Puttonen and Pesonen (2007) examined gender difference in 217 masters students in two Finnish universities asking about what defines a well-run company. The results of their study showed that females were more in favour of a stakeholder model and had a higher ethical perception. Their study also showed that such difference existed at the start and end of their university education (Lamsa et al., 2007).

Gender difference in accounting students has also been examined. Gammie and Gammie (2009) examined the moral awareness of final year honours students from both accounting and business programmes using a Kantian approach. After examining 130 students, their study suggested that the moral awareness of female participants was higher than males (Gammie & Gammie, 2009). Gammie and Gammie (2009) further concluded that such differences existed only for moral awareness, not ethical virtue. However, they found gender differences were significant only in the group of business students, not in the accounting students. Thus, questions arise as to why gender differences exist in some groups but not others.

Other previous studies showed differences in PIE between genders were not significant. For example, Tsalikis and Ortiz-Buonafina's (1990) study indicated no gender difference in ethical beliefs and both genders processed ethical information similarly. Using case scenarios and the Reidenbach-Robin Instrument, 175 business university students in the United States of America showed no difference in ethical beliefs and perceptions, and both males and females judged ethical situations using similar processes (Tsalikis & Ortiz-Buonafina, 1990). Similarly, Sikula and Costa (1991) concluded there was no gender difference in the ethical values of their sample of the United States of America state university students. A group of 171 students were asked to fill out the Rokeach Value Survey twice in a ten week period after the introduction of an ethics course during the period. The authors concluded that male and female university students were ethically equivalent, although they showed differences on some non-ethical values such as imagination.

Prior studies also examined participants from nations outside the United States of America and the results of McDonald and Kan's (1997) study suggested that in Hong Kong, the gender difference in ethical perception was not significant. Their results showed little difference between gender in Hong Kong. Significant differences were found in only two out of 14 scenarios and these two scenarios themselves related to gender issues. Participants from other disciplines have also been examined. For example, Myyry and Helkama (2002) used social psychology students in their study and found, overall, no significant gender difference among

their sample. Myyry and Helkama (2002) examined 70 social psychology students in an ethics course and tried to find out the impact of ethics education on the students' moral sensitivity. Their results showed that, although females scored higher on sensitivity, there was no significant evidence to support gender differences (Myyry & Helkama, 2002).

2.7.3 Gender Socialisation Theory

With these contradictory results from prior studies about gender difference on PIE, and on ER levels, as discussed in the section above, it may be reasonable to suggest that biological differences alone may not be able to predict the ethical behaviours of individuals. For example, after surveying 224 undergraduate business students, the results of McCabe, Ingram, and Dato-on's (2006) study suggested that ethical perceptions are influenced by more than biological differences. However, Stimpson et al. (1992) found significant gender differences in participants from Korea, China, Thailand and the United States of America. They therefore concluded that gender differences existed across cultures and nations and such differences were rooted in biological differences and were then influenced by culture.

On the other hand, Gammie and Gammie (2009) found no gender difference in accountants, and this was supported by a number of previous studies (e.g. Abdolmohammadi & Ariail, 2009; Geiger & O'Connell, 1998; McCabe et al., 1991). Gammie and Gammie (2009) summarised that "...accountants, irrespective of their biological gender are either masculine or androgynous and are thus less likely to display female traits and attributes" (p50). In other words, the finding of no gender difference could be explained by the assumption that both male and female accountants have the same masculine characteristics, which were promoted by accounting education (Bebbington et al., 1997). Therefore, McPhail and Walters (2009) suggested that the focus should be on the differences between the masculine personality and the feminine personality, instead of biological gender differences.

2.8 Ethics Education

Biological gender differences could not explain the results of no gender differences found in prior studies. The differences between the masculine personality and the feminine personality may be more appropriate to explain the contradictory findings of prior studies. If that is the case, the finding of Gammie and Gammie's (2009) study that no gender difference existed in accountants then questioned the effect of accounting education (which promotes the masculine personality) on individuals' ethics. The impact of education on the ethics of students was further questioned after comparing accounting students with business students (Gammie & Gammie, 2009). This section reviews the literature about ethics education.

The introduction of ethics education into the university business curriculum at some universities aims to address the importance of ethical behaviours to future accountants and managers. The introduction of ethics education also aims to defend the negative impact on ethics from traditional business education. One early study (Kumar, Borycki, Nonis and Yauger, 1991) argued that the assumptions embedded in typical business courses could guide students to believe that success in business needs unethical decisions and behaviours. Many have suggested that business education teaches theories and models that emphasise shareholder values too much which leads to a decrease in ethical values (Ghoshal, 2005; McPhail, 2001). Being ethical is about serving the public interest and is about more than focusing on shareholder values. Traditional business education fails to pick up the importance of the public interest, which will lead to unethical decisions when there is a conflict between shareholder interests and the public interest.

Such a negative impact from traditional business education can be observed when comparing business students against students from other disciplines. For example, Lane and Schaupp (1989) examined the ethical perceptions of undergraduate students from different colleges in one eastern state university in the United States of America. The results of their study showed that business students had a lower ethical perception than students in other colleges. Business students believed "Winning is everything" more than others (Lane and Schaupp, 1989). This indicated a negative relationship between ethical perceptions and business professional education. Such a negative impact can also be found when comparing business students at different levels. Although McDonald and Kan (1997) suggested individuals with higher qualifications will consider the results and consequences of their actions more than others, many other studies found the increase in education leads to a decrease of ethics. For example, Lamsa et al. (2007) examined the effect of business education on how students defined a well-run company. They examined 217 Masters students in two Finnish universities. Their study found that, with increased education, the valuation of the shareholder model increased. Their results indicated a negative relationship between education and ethical values. Similarly, Mehta and Kau (1984) observed a negative relationship between ethical perceptions and education. Their study suggested that individuals with a higher qualification would perceive less actions as unethical than those with lower qualifications. They explained that such a negative relationship was related to the positive relationship between education and alienation.

Therefore, the introduction of ethics education is essential to accounting curriculum and Lau (2010) also has suggested that a higher stage of moral development in Kohlberg's (1976) CMD Theory could be the result of ethics education.

2.8.1 Ethics Education and Ethics

The literature discussed the effect of ethics education on ethics. There are two contrasting views: ethics cannot be taught, and ethics can be taught.

Armstrong (1987) found that ethics education may not necessarily improve the ethics level after comparing CPAs who had received ethics education with college students and college graduates. Cooley (2004) also argued that students who received ethics education and remembered the moral theory for passing the test still made wrong decisions as a result of their personal biases and rationalisations. Students coming to the university already have a mature level of ethics and this raised the question whether university ethics education will have any effect on an adult (Thurow, 1987).

Even though ethics education may influence students, students may still have difficulties in applying the skills learned in the class in the real world because there were other considerations decision makers have to deal with (McDonald & Donleavy, 1995). For example, in the case of Enron, managers should have known their activities were not ethical, but they still carried on fulfilling their greed. Weber (1990) further argued that ethics education may improve the ethical awareness and ethical reasoning of students, but such an improvement may diminish over time.

In contrast, other researchers proposed that ethical thinking was a distinct cognitive domain and it could be taught (Rest, 1979). Accounting graduates who did not receive ethics education may be unfamiliar with professional codes of ethics and, as a result, may lack the ability to deter/address ethical dilemmas in their career (Williams & Elson, 2009). Students who have received ethics education will have better knowledge and skills to make proper decisions when facing ethically questionable situations (Lau, 2010; Low et al., 2008). In other words, ethics education will assist students to recognise, examine, judge and assess ethical matters in the real world. As a result, students would be able to apply and make ethical decisions (Rossouw, 2002; Sims, 2002).

Ethics education has been recognised as an important part of education in universities (Wu, 2003). When surveying students, the results also indicated that students were willing to receive more ethics education during their university study (Adkin & Radtke, 2004). More

importantly, the emphasis on ethics education requirements from society could lead to a lower rate of willingness to act unethically (O'Leary & Radich, 2001). This may be because the attention on ethics education influenced students to be more aware of the importance of ethical issues. Therefore, even if ethical education does not have a significant effect on the ethics level; such education will stress to students the importance of ethical issues (Gautschi & Jones, 1998).

In addition, ethics education provides an opportunity for students to be aware of the ethical issues and, as a result, students will have a higher probability of believing that the success of a business was related to ethical behaviour (Luthar et al., 1997). Hence, even if students' ethical level did not improve after ethics education, they would make ethical decisions according to their personal goal: a successful business.

From these two contrasting views in the literature, Batson et al. (2006) suggested there were two types of internalisation of ethical values through ethics education: integration (into individuals' inner principles) or introjection (following regulations). Mayhew and Murphy (2008) found that ethics education resulted in introjection rather than integration. Their study showed that misreporting rates were almost the same regardless of the involvement of ethics education when such reporting was anonymous. The misreporting of participants who have received ethics education was lower only when such reporting was going to be public, suggesting that ethics education may not directly result in the internalisation of ethical values, but such education would have some influence on ethical behaviours (Mayhew & Murphy, 2008).

To better understand the relationship between ethics education and individuals' ethics, prior studies examined the effect of ethics education on a variety of ethics values, such as ER levels and PIE. Two of the most common examining methods used in the prior studies are comparisons of two groups of participants (Group Comparison) and the comparison of one group of participants before and after the ethics intervention (Longitudinal Comparison). The following sections will review these studies in detail.

2.8.2   Ethics Education and ER

Along with the two contrasting views regarding the effect of ethics education on individuals' ethics, prior studies have examined the relationship between ethics education and a variety of ethical values, such as ER levels.

Some previous studies examined the effect of ethics education by comparing two groups of participants (Group Comparison). For example, Fulmer and Cargile (1987) used ethics scenarios to examine the effect of ethics education in one university and compared senior accounting students with business students: the ethics intervention showed a negative correlation with the moral development (Fulmer & Cargile, 1987). Similarly, Ritter (2006) tested the effect of ethics education on ethical awareness and ER. Ritter (2006) selected 134 undergraduate business students and tested their ER levels using ethical vignettes. The sample consisted of two groups, one with an additional ethics curriculum and the other without. The study found there was no impact on ethical awareness or ER from ethics education (Ritter, 2006).

Other studies compared different levels of accounting students to implement the method that compared a group of students before and after ethics intervention (Longitudinal Comparison). For example, McCarthy (1997) examined 306 beginning accounting students and 294 advanced accounting students from a variety of universities and colleges in the United States of America. The advanced accounting students had received courses containing aspects of ethics, such as auditing. The results of the Index of Ethical Congruence revealed that there was little evidence to support that ethics education improved moral development (McCarthy, 1997). Another similar study examined the ER levels of 73 senior undergraduate accounting students and 53 graduate accounting students using the Defining Issues Test (Ponemon, 1993). This study showed that, after receiving a one-semester introductory auditing course, the ER levels of participants did not improve, suggesting there was no impact from ethics education (Ponemon, 1993).

A few other studies have used different approaches to examine the effect of ethics education. Martin (1982) employed a mix of these two comparison methods (Group Comparison and Longitudinal Comparison) and surveyed 889 senior undergraduates in the United States of America using ethics scenarios. After comparing the ER levels of business students before the ethics courses and after the ethics courses with engineering and other students, Martin (1982) found business students did not show a significantly greater improvement in ER levels than engineering students, even when the business students had been exposed to ethics courses. The results of this study concluded that there was no impact on ER from ethics education. More recently, Burks and Sellani (2008) measured the effect of ethics education using the number of completed ethics courses to examine the effect of ethics education on the ER levels of college students. Using DIT, Burks and Sellani (2008) compared the ER levels of accounting students and other business students from two private religiously-affiliated

universities and one public, secular university. The results indicated that ethics education had no impact on the ER either for the accounting or other business students (Burks & Sellani, 2008).

However, prior studies also suggest there is a positive effect on ER levels from ethics education. Using the group comparison method, prior studies suggested the intervention of ethics education has a positive effect on individuals' ER levels. For example, Shaub (1994) examined the association between traditional demographic variables and the ER of auditing students and auditors using Defining Issues Test (DIT) (Rest, 1979). After investigating 91 auditing students and 207 auditors, Shaub (1994) found that participants who had taken ethics courses had higher DIT scores than those who had not. Therefore, Shaub (1994) suggested that ethics education interventions should be designed to help students in making ethical decisions. Similarly, from the results of a four-year study using questionnaires, Glenn (1992) proposed a positive impact on ethical judgement from ethics education. After investigating 460 graduates, business and sociology undergraduates from 18 universities in the United States of America, Glenn concluded that participants who had taken an ethics course would make better ethical judgements. Other studies also found ethics education and other contexts, including community service experience (Weber & Glyptis, 2000) and students' willingness to learn (Lau, 2010), had a combined effect on individuals' ER levels. Weber and Glyptis (2000) studied the impact of ethics courses and community service on 129 junior business students in the United States of America. Using the Students' Opinion and Value Survey, they found a positive impact from business ethics courses and community service experience on students' sensitivity and reasoning skills (Weber & Glyptis, 2000). A more recent study by Lau (2010) examined the relationship between ethics education and ethical awareness, and ER. This study asked 707 business students from a research university in Ireland to complete an Attitudes Towards Business Ethics Questionnaire and ten vignettes. The results suggested that ethics education improved both the ethical awareness and ER of the participants (Lau, 2010). Lau (2010) further concluded that such an improvement was positively correlated with the students' willingness to learn.

Prior studies using the longitudinal comparison method also suggested ethics education is positively correlated with individuals' ER levels. Carlson and Burke (1998) investigated the impact of ethics education using case studies. A group of 67 students was asked to answer yes/no questions and give reasons before and after an ethics course. Their results showed a positive impact on ER of ethics education. After ethics education, students thought more flexibly about responsibility, and were able to understand complex circumstances that

influence ethical behaviour (Carlson & Burke, 1998). Wu (2003) conducted a survey to assess the impact of ethics education using business university students from Mainland China and Taiwan. A group of 126 students was asked to complete a Rokeach Value Survey and case scenarios before and after completing an ethics education course provided by the researcher (Wu, 2003). The results showed that after receiving ethics education, students from both areas had a significant and favourable improvement in their individual values, ethical dilemma recognition and ethical decision performance.

Jones (2009) used a mix of the two comparison methods (Group Comparison and Longitudinal Comparison) to study the influence of ethics education on ER after junior business university students completed five 75-minute business ethics classes and two related assignments. Jones suggested that such a setting of ethics education utilised a novel pedagogical approach and would result in improvements in ER. A total of 190 students was surveyed using DIT, in which 114 students had received ethics education and 76 students had not. The results indicated that students who had received ethics education demonstrated higher improvements in ER than those who did not receive ethics education (Jones, 2009).

Thus, the literature review above demonstrates contradictory results on the effect of ethics education, under both of the two most commonly used investigation methods. From Lau's (2010) study, it has been suggested that ethics education may impact ER, along with other contexts, such as gender (discussed in Section 2.7), community service experience (Weber & Glyptis, 2000) and the students' willingness to learn (Lau, 2010). The contradicting results reported in prior studies could be explained as ethics education alone could not fully explain individuals' ER levels.

2.8.3   Ethics Education and PIE

Prior studies examining the relationship between ethics education and PIE show a similar pattern to ER studies, and there are contradictory results from those studies whether ethics education can improve individuals' PIE. Cagle and Baucus (2006) investigated the effects of case studies of ethical scandals on ethical perceptions in finance courses. They concluded that education could positively influence the ethical perceptions of individuals.

However, Cagle, Glasgo and Holmes (2008) conducted a study in finance classes to examine the impact of using ethics vignettes on students' perceptions of the importance of ethics. They found that such teaching methods did not affect students' ethical beliefs.

2.8.4   Discussion about Education, Ethics Education, and Ethics

The introduction of ethics education aims to address the importance of ethical behaviours, and improve the ethics of future accountants and managers. The introduction of ethics education also aims to defend the negative impact on ethics by traditional business education. However, prior studies showed there are contrasting views of whether ethics education could achieve these objectives.

The contrasting views could be explained, in some cases, by ethics education not being powerful enough to offset the negative impact of business education (as discussed in Section 2.8.1). The impact of ethics education on individuals' ethics could also be influenced by other contexts, including gender (discussed in Section 2.7), community service experience (Weber & Glyptis, 2000) and the students' willingness to learn (Lau, 2010).

Nevertheless, Armstrong (1987) suggested that ethics education was important. If ethics can be taught, ethics education was required to prevent scandals. If ethics cannot be taught, ethics education was still a good tool for students to receive a clearer knowledge of professional ethics (Armstrong, 1987).

2.9   Other Factors

Beyond nationality, gender and education, prior studies have also examined other demographic characteristics of individuals including age, rank, work experience and religion. When examining the ethical intentions of employees, previous studies (e.g. Glover et al., 2002; Valentine et al., 2009) found that age and rank could have a positive (favourable) impact on the ethical intentions of individuals. Valentine et al. (2009) found that ethical intentions increased as women got older and that women in supervisory roles showed higher altruism. Such relationships could also be explained by the work experience of individuals, because older supervisors would have more experience than others. For example, Glover et al. (2002) found work experience was positively correlated with the ethical behaviours. Other studies have looked at the effect of religion (Burks and Sellani, 2008) and community service experience (Weber and Glyptis, 2000).

2.10   Chapter Summary

This chapter has provided a review of the relevant literature regarding ethics and in particular ER and PIE. Section 2.2 discussed the importance of ethics to the accounting profession. Section 2.3 introduced the ethical reasoning level and the Cognitive Moral Development Theory and PIE was introduced in Section 2.4. Section 2.5 explained the unique research

opportunity in China. The effects on ethics, ER and PIE of nationality, gender and education were reviewed in Sections 2.6, 2.7 and 2.8 respectively. Section 2.9 briefly identified other factors that may influence ER and PIE.

Chapter 3
Theoretical Framework

3.1   Introduction

This chapter presents the theoretical framework for this study based on the literature discussed in Chapter Two. Following this, eight hypotheses were formulated to address the following research objectives outlined in Chapter One:

1. To determine if the ER levels and PIE are different between Chinese and New Zealand accounting students.

2. To determine if the ER levels and PIE are different between males and females, irrespective of their nationality.

3. To examine how COS differ from CIC and NZL, in terms of their ER levels and PIE.

3.2   Conceptual Gaps in the Literature

A review of the literature in Chapter Two identified several conceptual gaps or problems existing in ethics studies. The first problem relates to the comparison of ER levels among different nations. National differences are more than just cultural differences. National differences include, but are not limited to, economic, political, social and historical differences. Most previous studies assess cultural differences by asking the nationality of participants. However, their results cannot be assumed to measure the impact of cultural differences. Many studies refer to China as one of the Confucian nations. It is questionable whether people in China, especially young Chinese, still hold the traditional Confucian values and traits. Chung et al. (2007) suggested that the social values of China now are more a mix of Confucian and Western values. Such a combination is the result of historical factors and rapid economic development during the last three decades (Chung et al., 2007). Obviously, the conclusion, that differences in ER or PIE are the result of cultural differences between Confucian and Western values could be questioned. In addition, most previous studies compared data collected in one nation with another and assumed people in one nation would have similar traits and performances on ER and PIE. However, the effect of immigrants in their samples was ignored (Tan & Chow, 2009). It is possible that the ER levels and PIE of immigrants are different from not only their native counterparts but also their resident counterparts. Therefore, there is a need to carefully re-examine the differences between

different nations. Such a re-examination includes a more careful interpretation of the differences between nations and a separate examination of immigrants.

The second gap in the literature is the contradictory results on the gender differences. If the gender differences exist, are such differences the result of biological differences or the gender socialisation theory?

The third gap in the literature relates to the effect of ethics education on individuals' ethics levels. The results from prior studies examining the effect of ethics education are contradictory. Previous studies examined the effect of ethics education by comparing participants who have taken an ethics course with participants who had not (Groups Comparison), or by comparing the ethics of one group participants before and after the intervention of ethics courses (Longitudinal Comparison). The problem with first method is the selection bias. Participants who chose to enrol in an ethics course may believe ethics is more important than students who chose not to enrol. Such a comparison is potentially the comparison of two different types of students (those who believe ethical behaviour is important versus those who don't). The best way to examine the impact of induction is using the longitudinal method. However, another difficulty exists with the examination of the effect of ethics education because ethics could not be objectively measured like, for example, the effect of medicine. Is the change of ethics after the introduction of an ethics course the result of such education, or is it just because participants repeatedly fill in identical questionnaires? It is possible that any improvement after an ethics course is related to the fact that students learnt keywords (stakeholder, for example) from courses and selected the most favourable answers from the research instrument. The effect of ethics education on individuals' ER levels and PIE could not be concluded from prior studies.

3.3 Theoretical Framework and Variables

3.3.1 Theoretical Framework

Based on the literature, individuals' ER levels and PIE can be influenced by their nationality (Fleming et al., 2010; Ge & Thomas, 2008; Tsui & Windsor, 2001), gender (Gammie & Gammie, 2009; Loo, 2003; Valentine et al., 2009), and education (Armstrong et al., 2003; Rest, 1979). The purpose of this study is to investigate how ER and PIE of individuals differ between nations, between genders and between different education experiences.

Prior studies also examined other factors (see Section 2.9 above). However, this study focuses only on nationality, gender and education for a number of reasons. First, because one of target countries is China and the target sample is undergraduate students, a number of factors could

be difficult to capture. For example, most students in Chinese universities would be aged 19 to 23; only a few of them would have a little part-time work experience. It is then difficult to find out age differences and experience differences. Secondly, any effect of religions would be difficult to measure in Chinese participants, as most of Chinese youths would state themselves as atheists. Thirdly, and most importantly, this study tries to avoid asking too much private information, such as grade and religion. Otherwise, some students may refuse to participate in the study because they may already feel uncomfortable about the topic of this study.

Therefore, this study focuses on the relationships among ER and PIE with three demographic characteristics, namely nationality, gender and education. The theoretical framework of this study is shown in Figure 3.1.
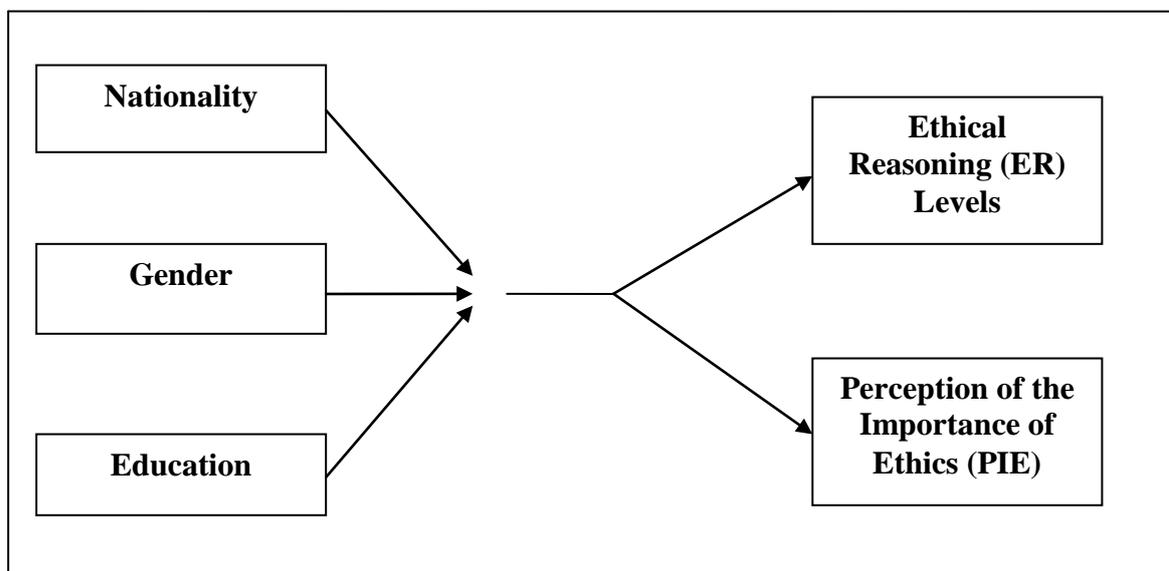
Figure 3.1 Theoretical Framework

3.3.2 Variables

The variables in this study include three independent variables, nationality, gender, and ethics education, and two dependent variables, individuals' ER levels and PIE (see Section 4.2 for measurement of the variables).

The increased number of COS in New Zealand during the last decade provided an interesting avenue to explore students' ER levels. In 2002, a total of 19,664 Chinese overseas students were studying in New Zealand (Immigration New Zealand Statistics, 2010). Even though the number of Chinese overseas students has dropped dramatically since 2003, there were still 4,446 Chinese overseas students studying in the eight New Zealand universities as of 6 June, 2010 (Immigration New Zealand Statistics, 2010).

A closer investigation of this COS group could provide more insight into ethics studies. On one hand, COS are different from CIC. COS live in a different society and have received different education from CIC. On the other hand, COS are different from NZL in their national background. Therefore, following a similar approach to that used by Tan and Chow (2009), this study identified the COS sample and treated its members as a separate bridging group (Figure 3.2). Such a classification is based on where New Zealand participants received most of their pre-university education. The ER levels and PIE among the three groups (CIC, COS, and NZL) were examined to provide more insight into the body of knowledge about ethics.
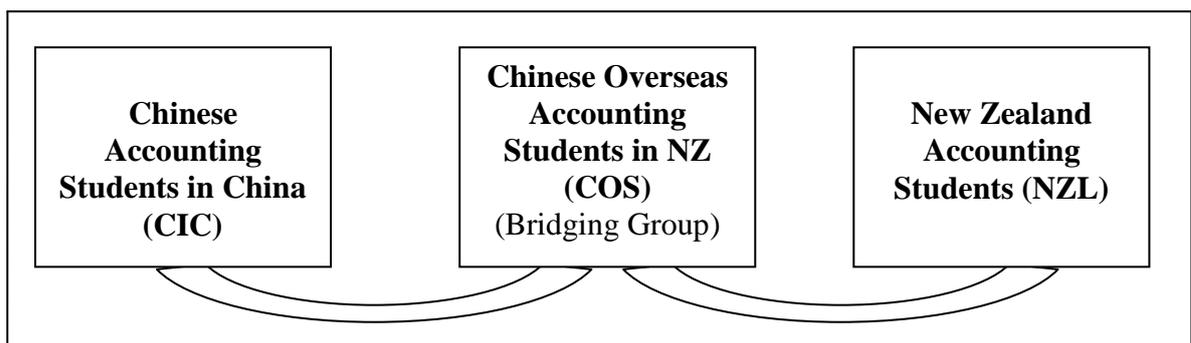
Figure 3.2 A Bridging Group

The reasons for having two dependent variables came from two different aspects. First, some previous studies suggested that the ER values could be affected by the nature of scenarios in the research instrument, especially when investigating gender differences. The PIE focuses more on the belief system of individuals, which is less influenced by the nature of ethical issues themselves (Guffey & McCarney, 2008). Secondly, because this study examined Chinese accounting students, it has been suggested that Chinese participants may show a disconnection between the ER levels and PIE (Chung et al., 2007).

3.4   Hypothesis Development

To answer the research objectives of this study, a total of eight hypotheses were developed. As the literature records contradictory results on most of these research objectives, all eight hypotheses are stated in their null form.

3.4.1   Hypotheses 1 and 2

Objective 1: To determine if the ER levels and PIE are different between Chinese and New Zealand accounting students.

As suggested in previous studies, the ER levels and PIE of individuals would be influenced by their national differences (Fleming et al., 2010; Ge & Thomas, 2008; Tsui & Windsor, 2001). Differences exist between China and New Zealand from many aspects, including cultural differences. Therefore, to answer the first objective of this study, hypothesis one and hypothesis two were developed as:

H$_1$: The ethical reasoning level of CIC is not different from that of NZL.

H$_2$: CIC do not perceive the importance of ethical behaviours differently from NZL do.

3.4.2 Hypotheses 3 and 4

Objective 2: To determine if the ER levels and PIE are different between males and females, irrespective of their nationality.

With the contradictory results from previous studies (Bletramini et al., 1984; Franke et al., 1997; Gammie & Gammie, 2009; Glover et al., 2002; Lan et al., 2010; Loo, 2003), another objective of this study was to re-examine the ER levels and PIE between males and females using final-year undergraduate accounting students from both New Zealand and China:

H$_3$: The ethical reasoning level of female accounting students is not different from that of their male counterparts.

H$_4$: Female accounting students do not perceive the importance of ethical behaviours differently from males.

3.4.3 Hypotheses 5, 6, 7, and 8

Objective 3: To examine how COS differ from CIC and NZL, in the contexts of their ER levels and PIE.

This study then could investigate the impact of different backgrounds and the impact of different study experiences on individuals' ER levels and PIE.

The creation of the COS group could provide more insight into the ER levels and PIE among different groups. The comparison of the ER levels and PIE between COS and CIC could add evidence to the effect of different educational experience on their ethical values:

H$_5$: The ethical reasoning level of COS is not different from that of CIC.

H$_6$: COS do not perceive the importance of ethical behaviours differently from CIC.

The comparison of the ER levels and PIE between COS and NZL, on the other hand, could discover the impact of individuals' backgrounds, even after they received similar education:

H$_7$: The ethical reasoning level of COS is not different from that of NZL.

H$_8$: COS do not perceive the importance of ethical behaviours differently from NZL.

3.5 Chapter Summary

This chapter formulated the theoretical framework of this study based on the conceptual gaps that exist in the literature. Section 3.2 discussed the conceptual gaps existing in literature. Based on these gaps, Section 3.3 presented the theoretical framework behind the objectives of this study and explained the variables. In Section 3.4, a total of eight hypotheses were formulated to address the research objectives of this study. A detailed explanation of research method used in this study will be introduced in next chapter.

Chapter 4
Research Method

4.1 Introduction

The previous chapter presented the theoretical framework for this study, and developed eight hypotheses based on the framework to address the research objectives of this study. This chapter introduces the research design of this study including the measurement of variables and the structure of the survey questionnaire. The data reliability and data analysis techniques are also discussed.

4.2 Variables Measurement

4.2.1 Independent Variables Nationality

All participants in this study were classified into three groups: CIC, COS and NZL. Participants in China are automatically be classified as CIC. Participants from New Zealand universities, who indicate they received pre-university education from neither New Zealand nor China, were excluded from the data analysis. The reason for this exclusion is to ensure the results of this study better reflect the differences between New Zealand and China. Participants from New Zealand universities who indicate their nationality is Chinese and received most of their pre-university education in China are classified as COS. Participants from New Zealand universities who indicate their nationality is New Zealander, and who received most of their pre-university education in New Zealand will be classified as NZL.

The reason for such classification relates to the criticisms about the cultural and national assumptions (see Section 2.6.3 above). Some previous studies asked participants' ethnicity and others studies asked participants' nationality. Previous studies, based on either method, assumed that their results reflected the differences between nations. However, such an assumption ignored the effect of immigrants and international students in their samples. Questions arise about what traits those Chinese living in New Zealand will have. Therefore, when sub-grouping the participants, this study does not only look at participants' nationality but also their study experience[6]. By doing so, the comparison between CIC and NZL could reach a more reliable conclusion on differences between two nations' students with respect to ER and PIE.

---

[6] In additional to COS, NZL and other international students studying in New Zealand, there is another group of individuals who could be found as participants from New Zealand universities: New Zealand born Chinese. No New Zealand born Chinese participated in this study.

In addition, such a classification could easily identify COS. This group of participants is unique because its members have different national background from NZL, and a different educational experience from CIC. The comparison between CIC and COS will find out the impact of different educational/living experience and the comparison between COS and NZL will find the impact of a different national/cultural background.

4.2.2 Independent Variables Gender

Participants in this study were classified by biological gender, irrespective of their nationalities, to test the gender difference. In addition, gender differences were further analysed between each individuals national groups (CIC, COS and NZL). This analysis aims to find out whether the focus of gender difference studies should be on the biological differences, or the differences between masculine personality and feminine personality.

4.2.3 Independent Variables Education

Due to the difficulties of measuring the quality of education, most previous studies tried to find out the influence of education by comparing the ethics of a group of students before and after conducting of an ethics course. Some other studies compared a group of students who had some ethics courses with others who did not. Criticisms of these two methods exist (see Section 3.2).

Therefore, this study examined the group of COS. By comparing COS with CIC, this study could find out how a different educational experience may influence the ER levels and PIE of individuals and avoid the problem of selection bias. This study was not looking at two types of person but two groups of persons. These two groups were in one group until some of them chose to study overseas: such a personal choice is not directly linked to their ER levels or PIE, unlike the willingness to learn.

In addition, the members of the CIC group were classified into attending a first-class university and attending a second-class university to test for any institutional difference (Institutional difference in China is discussed in Section 4.3 below). Participants from New Zealand were not classified into different institutions because there is minimal difference in what is taught to students between universities in New Zealand.

This study developed six questions asking participants how much their university courses emphasised on ethics education (EEE) using a seven-point Likert-type scale. The score of this section was the mean of these six questions. A participant with a lower score in this section believes his/her courses emphasised more on ethics than those with a higher score.

4.2.4 Dependent Variables

There are two dependent variables in this study: ER and PIE. ER is the decision making process by which individuals decide whether an action is ethical (Ge & Thomas, 2008). The literature has shown that individuals' ER levels could be influenced by various factors such as nationality (Tsui & Windsor, 2001), gender (Gammie & Gammie, 2009) and ethics education (Rest, 1979). In this study, based on Kohlberg's (1976) theory on moral development and Rest's (1979) Define Issues Test, ER levels were measured using a research instrument developed by Welton et al. (1994).

Previous studies on ER levels have commonly adopted Kohlberg's (1976) CMD (Armstrong, 1987; Fleming et al., 2010; Ge and Thomas, 2008; Jones, 2009; Rest, 1979; Tsui and Windsor, 2001). In 1979, Rest developed the Defining Issues Test (DIT) to measure the ER level of individuals. The result of DIT, the P-score, is the percentage of principled choices or, in other words, the post-conventional stage (Kohlberg, 1976) in an individuals' ethical reasoning process (Rest, 1979). A higher P-score on DIT indicates a higher ER level. In the literature DIT has been used to examine the effects of the demographic characteristics of individuals on ER levels (Abdolmohammadi & Ariail, 2009; Herington & Weaven, 2008) such as gender (Shaub, 1994), culture (Tsui & Windor, 2001) and ethics education (Armstrong, 1987).

Instead of using generic decision scenarios, Welton et al. (1994) developed another research instrument using accounting related scenarios. This instrument is based on Rest's (1979) DIT to suit accountants and accounting students (Jones et al., 2003; Shaub, 1994). Like DIT, the Welton et al. (1994) instrument produces a P-score. This study used three scenarios out of a total four scenarios from the Welton et al. (1994) instrument to keep the research instrument reasonably short and so increase the respondent rate (see Appendix B for a copy of the survey questionnaire)[7].

Participants were asked to respond to each of three scenarios. In each scenario, participants needed to judge whether the unethical action would be taken, or they cannot decide. Participants are asked to determine the importance of 12 considerations using a five-point response scale (great, much, some, little and no importance) when they judge each case. Participants then needed to identify and rank the four of most important considerations out of 12 considerations (most important, 2nd most important, 3rd most important and 4th most important). In these 12 considerations, there are four considerations that represent Kohlberg's

---

[7] Permission to use the instrument was granted by Professor Ralph Welton on November 24th, 2010.

(1976) stages five or six of his CMD theory. Participants gain points if they identify these four considerations as their four most important considerations to make decisions. The P-score of a participant was calculated by adding the total points the participant gained from all three scenarios and dividing the total by 0.30. Individuals with a higher P-score will have a higher ER level (Welton et al., 1994).

The PIE in this study refers to personal ethical beliefs. In other words, the PIE reveals individuals' perceptions about the importance of ethics and social responsibility (Axinn et al., 2004; Singhapakdi et al., 1995). This study developed seven questions. These seven questions contain the trade-off between personal interests and the public interest, the trade-off between personal interests and other's interests, and the trade-off between single business interests and ethical behaviours. In addition, questions were also asked of participants' opinions about how society, peers and family with respect to businesses and individuals who maintain high ethical standards. Each question was measured using a seven-point Likert-type scale[8]. Each scale indicates the participants' level of agreement with a statement measured on a 7-point scale, with "1" being strongly agree, "7" strongly disagree.

Following the similar studies examining ethics perceptions, such as Allmon, et al. (1997), PIE is measured using the mean rather than the median. The PIE score of each individual is the result of eight minus the mean of 7 questions[9]. Therefore, a higher PIE score suggests a higher perception of on the importance of ethics.

4.3 Sample

The data were collected from a sample of final year undergraduate accounting students. Undergraduate accounting students are on the verge of entering the accounting profession. Therefore, the results concluded from this study reflect the future accounting profession. The selection of final year students aimed to better capture the impact of education on individuals' ER levels and PIE.

After the survey questionnaire was reviewed and granted approval by the Lincoln University Human Ethics Committee, the data collection process was conducted in both Chinese and New Zealand universities.

---

[8] The use of 7-point scales can increase the variation and reliability of results.
[9] The PIE and EEE instruments were built so individuals who scored a lower mean would have a higher PIE or EEE. To avoid the misunderstanding in the following discussion, the mean of PIE and EEE need to be revised to show that a higher mean indicates a higher PIE or EEE.

In China, the survey questionnaires were distributed to 227 students in two universities. Both universities were located in one south-east province in China, on the basis of geographical convenience for the researcher. To better reflect the population of Chinese students, one university is a first-class university, Xiamen University (University A). Xiamen University is one of the top three universities famous for accounting majors. The second university is a second-class university[10], Putian University (University B). Questionnaires were distributed to students during the class time with help from lecturers and tutors. The questionnaires were collected the day after distribution. Because most major courses are compulsory in the Chinese tertiary education system, students enrolled for Accounting Major will have same accounting courses even in their final year of study. The questionnaires were distributed to students in one of those compulsory courses, so 227 was approximately the total number of final year undergraduate accounting students in these two universities.

In New Zealand, the survey was intended to be conducted in three universities in South Island of New Zealand: University of Canterbury, University of Otago, and Lincoln University. The selection of these three universities was on the basis of geographical convenience for the researcher. The survey questionnaires were distributed to students enrolled in ACCT 320 *Accounting Theory* at Otago University, to students enrolled in ACCT 302 *Auditing* at Lincoln University. Students in New Zealand universities could choose courses they are interested in, unlike in Chinese universities. Therefore, the questionnaires were distributed to students in one course in each university to avoid the possibility of someone filling the questionnaire twice. The courses were selected by considering the importance of the course and the number of students enrolled. It is possible, though, that the questionnaires were not distributed to all final year accounting students. As a result of the February 2011 earthquake in Christchurch, the University of Canterbury was unable to accommodate the conduct of this survey. As a result, the New Zealand sample is smaller than the Chinese sample. The questionnaires were distributed to Otago and Lincoln students during their class time, with help from lecturers, and collected at the end of that class.

The survey was conducted on a voluntary and anonymous basis. After read the covering letter of the survey, students could either participate in the survey or hand in the uncompleted survey. It is impossible to identify individual participants from the contents of the questionnaire and the results of this study are reported in an aggregate form. A total of 181

---

[10] In China, tertiary education has several levels: first-class universities, second-class universities, and colleges. Both first-class universities and second-class universities offer degree courses, but colleges offer only diploma courses. Students who wish to study in universities have to take University Entrance Examination. Based on the scores from University Entrance Examination, students with a higher score could enrol in first-class universities. In addition, first-class universities have much better teaching resources compared with the other two.

returned and useable questionnaires came from both the Chinese and New Zealand universities[11].

4.4 Research Design

4.4.1 Design of the Survey Questionnaire

The primary data in this study were collected through a survey questionnaire on a voluntary and anonymous basis.

The questionnaire contains four sections (see Appendix B). Starting with a cover page, which explains the purpose and nature of this survey, Section one of this questionnaire is the three-scenario version of the Welton et al. (1994) instrument to measure the ER level of individuals. This study selected the following scenarios: The Opinion, Bankruptcy, and Reimbursement from original four-scenario version. Section two of the questionnaire contains seven questions developed to measure the PIE using seven-point Likert-type scales (range from Strongly Agree to Strongly Disagree). Section three of the questionnaire has eight questions developed to ask participants how much their university courses emphasised ethics education (EEE). Question 1 and question 2 of this section are buffer questions, asking how many ethics courses or ethics containing courses participants had had. These two buffer questions provide buffer time helping participants to memorise how many ethics courses they had. The evaluation score of each participant is the mean of scores in questions 3 to 8. These six questions used seven-point Likert-type scales (range from Very Much to Not At All).

Section four, the last section of the questionnaire, contained five questions. This section collected the demographic information from participants, including gender, nationality (New Zealand, China, or Other), and the place where participants received most of their primary school, secondary school, and university education (New Zealand, China, or Other).

4.4.2 Pilot Testing

Pilot testing was conducted on a sample of ten postgraduate accounting students. The pilot testing was conducted to ensure the instrument was well developed and designed. Feedback from the pilot testing can be used to improve the contents, clarity and layout of the questionnaire. The pilot testing also helped to detect errors and words that could lead to misunderstanding in the questionnaire. The approximate time required to complete the questionnaire was also found from pilot testing. From the results of pilot testing, the reliability of each instrument could be examined before the final survey was conducted.

---

[11] See Table 5.2 for the summary of data.

In addition, discussion with people involved in the pilot testing helped in the development of questions that were used to measure the PIE and education evaluation. The responses from the pilot testing also helped to determine which instrument was preferred to measure the ER level[12].

4.4.3 Translation of the Survey Questionnaire

Constructed in English, the questionnaire was translated into Chinese by the researcher, who is a native speaker of Chinese. The translation process also involved help from accounting lecturers in Chinese universities to ensure accounting technical terms were accurately translated into Chinese. Accounting lecturers in Chinese universities helped to ensure the layout of the Chinese version of the questionnaire conformed to Chinese custom so reduced the possibility of misunderstanding. New Zealand participants received the English version of the questionnaire and Chinese participants received the Chinese version.

The questionnaire was then translated from Chinese back to English by one of the researcher's acquaintances (who is also a native speaker of Chinese and an accounting graduate) to ensure the accuracy of the translation.

4.4.4 Instrument Validity, Generalisability, and Reliability

4.4.4.1 *Validity*

With regards to the validity, selection bias is a limitation of this study. Because the survey was conducted on a voluntary basis, those who voluntarily completed the questionnaires might have a stronger sense about the ethics than those who chose not to participate. It is questionable whether the ethical values of those who chose not to participate would be represented in the results. Therefore, generalisation of the results to the whole population can be criticised.

4.4.4.2 *Generalisability*

This study was conducted in two Chinese universities and two New Zealand universities. One criticism is that the results of this study could be generalised only to these four universities, not to two nations. However, the results of this study could be extended to accounting students in New Zealand, even if only two universities were selected. This is because there is minimal difference in what is taught in accounting courses between universities in New

---

[12] This study intended to use the four-case Thorne's (2000) instrument to measure the ethical reasoning levels. However, Thorne's instrument is difficult to understand and could easily lead to misunderstanding by participants. Therefore, both Thorne's (2000) instrument and Welton et al. (1994) instrument were included in the pilot test. The responses from the pilot test suggested that Welton et al.'s (1994) instrument is much easier to understand.

Zealand. For Chinese universities, because of limited resources, it is impossible to survey all universities in China. However, this study selected one first-class university and one second-class university in China as sample targets. The selection of students from the two different levels of universities could help to increase the generalisbility of the results, which might extend to all accounting students in China.

4.4.4.3 Reliability

To test the reliability of the instrument used in this study, the test-retest reliability test was used. Rest et al. (1994) suggested the average P-score (ER levels) from accounting students should be around 35. Therefore, when using DIT or instruments based on DIT, the P-score of accounting students should be around 35. One recent study by Liyanarachchi and Newdick (2009) reported that the P-score of accounting students from one New Zealand University was 34.28 using Welton et al. (1994). This suggested that the Welton et al. (1994) instrument produces similar results to DIT and that this instrument has a reasonable level of test-retest reliability. The P-score of this study can be compared against Liyanarachchi and Newdick's (2009) study and other studies that used the Welton et al. (1994) instrument to consider the test-retest reliability of instrument.

The mean of P-scores from the sample of 181 accounting students in this study was 32.56 (2 d.p.). The average P-score of this study is slightly lower than the P-score (34.28) reported by Liyanarachchi and Newdick (2009). However, it is still a reliable score which is around 35. When looking at those studies comparing Chinese accounting students with other nations, the average P-score of this study is also still in the range of P-scores reported using DIT or Thorne's (2000) instrument (Fleming, et al., 2010; Ge & Thomas, 2008)[13]. Therefore, this suggests that the Welton et al. (1994) instrument has acceptable test-retest reliability.

In addition, Cronbach's Alpha test can be conducted to assess the reliability of an instrument. The Cronbach's Alpha test measures how well each item in the instrument correlates with others. The Cronbach's Alpha is a number between 0 and 1. The higher the Cronbach's Alpha, the higher is the reliability of the instrument. It is normally suggested that the Cronbach's Alpha of an instrument should be over 0.7 so the instrument could be considered acceptably reliable. Cronbach's Alpha test was conducted to examine the reliability of the instrument measuring ER levels, the instrument measuring PIE and instrument measuring education evaluation.

---

[13] See Appendix A for the summary of P-scores from these studies.

This study used the three scenarios version of the Welton et al. (1994) instrument. Participants' P-score (ER levels) is the sum of the P-score from these three scenarios. Theoretically, the three scenarios are measuring the same thing, so the P-scores from these three scenarios should be similar. Table 4.1 shows the average P-scores for each of three scenarios. From the this study's sample, the average P-score from scenario "The Opinion", however, stood out from other two scenarios and was much higher than the P-score from other two scenarios. This significant amount of variance in the average P-scores from three scenarios indicates the need to examine the reliability of the instrument. Therefore, the Cronbach's Alpha test was conducted to ensure the reliability of the ethical reasoning instrument.

Table 4.1   Average P-Scores for Each Scenario.

Scenario	P-Score
The Opinion	17.33
The Bankruptcy	6.30
The Reimbursement	8.93

The Cronbach's Alpha for the ER instrument was 0.169 (number of items: 3), which indicates the reliability of the ER instrument from the data of this study is extremely low. The Cronbach's Alpha of this study did not pass the 0.70 acceptable levels, nor did it conform to other studies. The Cronbach's Alpha, from previous studies, using similar ethical reasoning instruments, lay between 0.53 and 0.301 (Throne, 2000; Liyanarachchi and Newdick, 2009). To identify what leads to this low Cronbach's Alpha, further analysis was conducted.

Table 4.2   Reliability of each Scenario.

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
The Opinion	15.2302	88.789	.150	-.062
Bankruptcy	26.2615	130.576	-.022	.355
Reimbursement	23.6280	109.172	.146	-.014

Table 4.2 shows that scenario "Bankruptcy" is the most unreliable item and likely causes a negative average covariance among the items. However, deletion of "Bankruptcy" scenario

does not produce an acceptable Cronbach's Alpha (as shown in Table 4.2 the Cronbach's Alpha would be 0.355 if "Bankruptcy" were removed).

The use of the three-scenario version of instrument could explain a lower Cronbach's Alpha, because it is positively related to the number of items in an instrument (Bernardi, 1994). Bernardi (1994) also suggested that a lower Cronbach's Alpha from the ethical reasoning instrument is caused by homogeneity of the participants. The Cronbach's Alpha of this study is lower than Liyanarachchi and Newdick's (2009) study; both studies used the identical instrument to measure the ER levels. The low reliability of ethical reasoning instrument, therefore, is one limitation of this study.

The Cronbach's Alpha test was also conducted on the PIE and EEE instruments to ensure the reliability of these two instruments. The Cronbach's Alpha for the instrument measuring PIE was 0.762 (number of items: 7) and the Cronbach's Alpha for the instrument measuring EEE was 0.804 (number of items: 6). The Cronbach's Alpha of these two instruments are above 0.70, suggesting the reliability of these two instruments is acceptable.

4.4.4.4   *Instrument Built-in Inconsistency Check*

The Welton et al. (1994) instrument measuring the ER levels also has a built-in inconsistency check. In each scenario, 12 considerations contain at least one nonsense item (N). The inclusion of the N consideration is to counter the bias that participants will always select the favourable answer, regardless of their actual level of ethical reasoning. Returned questionnaires with N-scores (calculated based on N items) equal to or higher than four were rejected from data analysis[14]. In addition, the four statements identified by subjects as most important are checked against the remaining statements to ensure there is no inconsistency (Appendix C). If inconsistencies occur on more than one scenario, this returned questionnaire was eliminated from data analysis.

4.5 Data Analysis

Once the questionnaires were collected, the data were recorded and coded into SPSS software version 17.0. The main statistical technique used in this study is Analysis of Variance (ANOVA). ANOVA provides an analysis of variance for the dependent variable by one or more variables (Norusis, 2008).

---

[14] Previous studies, either using DIT or Welton et al. (1994) instrument, excluded subjects with N-score summed to five or more. In addition, Professor Ralph Welton, developer of the Welton et al. (1994) instrument suggested to excluding subjects with an N-score of six or more (Appendix C). However, this study follows a more strict way as the validity of the data analysis and inferences are more important than to increase sample size (Fleming et al. 2010). It is also because excluding subjects with an N-score of four or more produced the highest Cronbach's Alpha.

An important first step in the use of ANOVA is to ensure the validity of assumptions. Assumptions needed for ANOVA include Independence, Normality and Equality of Variance (Norusis, 2008). It can be assumed that there is no relationship between the observations in the different groups and between the observations in the same group.

ANOVA also requires the assumption that the populations are normally distributed. Because the sample size of this study was 181 and was greater than 50, the Kolmogorov-Simirnov test will be conducted for the data of the ER levels, PIE, and EEE. If the significant level of variable is greater than 0.05, normal distribution of this variable could be assumed and ANOVA could be conducted. If the significant level of the variable is less than 0.05, this variable does not have a normal distribution and, as a result, non-parametric tests should be used to examine this variable (Norusis, 2008).

Because the sample size for each group in this study was quite different, the assumption of equality of variance is very important (Norusis, 2008). Therefore, the Levene test will be carried out to ensure the variances of the test groups are equivalent before the conducting the ANOVA. If the results of the Levene test show no violation of equality of groups' variance, ANOVA and Post Hoc Multiple Comparisons (Post Hoc tests) will be conducted to compare the means among groups. Although ANOVA may be robust to the violation of equality of groups' variance, it is only when the groups have equal or near equal size. In the case of violation of equality of variance, non-parametric tests will be conducted, such as the Mann Whitney U test, since these tests require fewer assumptions (Norusis, 2008).

4.6 Chapter Summary

This chapter described the study's research method. Section 4.2 introduced the measurement of variables, and Section 4.3 explains the sample of this study. Section 4.4 then explained the research design of this study, including the design of the questionnaires, and the validity and reliability of instruments used. Section 4.5 briefly explained how data were analysed.

Chapter 5
Results and Discussion

5.1 Introduction

This chapter provides the descriptive results and test results for hypotheses developed in Chapter Three to provide insights into the differences of ER levels and PIE between China and New Zealand, and between male and female students irrespective of their nationalities. These results are discussed and interpreted with the support from the literature reviewed in Chapter Two.

5.2 Response Rate

This study conducted the survey in four universities, two in China and two in New Zealand. The two Chinese universities included one First-Class university (University A) and one Second-Class university (University B). The First-Class university does not only have good reputation in the accounting major and better teaching resources, but also has priority to matriculate better students. The two New Zealand universities were Lincoln University and the University of Otago. A total of 347 copies of questionnaires were distributed in these four universities; 181 responses could be used for data analysis. Table 5.1 shows a summary of the response rate from Chinese universities and New Zealand universities for this study.

Table 5.1 Response Rate

	China		New Zealand
	First-Class University	**Second-Class University**	**New Zealand**
Distributed	110	117	120
Less: Other International Students	-	-	3
Completed	90	107	76
Less: Unusable	24	53	6
Less: Identical	7	2	-
Usable Response	59	52	70
Usable Response Rate	54%	44%	58%

The distribution of questionnaires in the Chinese universities was conducted with help from accounting lecturers and tutors in the two universities. All 227 copies of survey questionnaires were returned. Of these 227 copies, 30 copies of questionnaires were incomplete. 53 copies from the Second-Class University and 24 copies from the First-Class University were rejected because they failed the built-in consistency checks in the ethical reasoning level instrument

(see Appendix C for the scoring method for the ethical reasoning instrument). A further 9 copies of returned questionnaires were eliminated from data analysis because they had identical answers in the ER levels instrument, suggesting they were copied from each others. All nine copies had to be eliminated because they have different answers in other sections and it is impossible to identify which one was original and which one was copied. As a result, a total of 111 questionnaires from the Chinese universities could be used for data analysis (see Table 5.1 for the response rate).

A total of 120 copies of survey questionnaires was distributed in two New Zealand universities to final-year undergraduate accounting students. Because there is minimal difference between New Zealand universities in terms of what is taught in accounting courses, New Zealand participants will be treated as a whole group[15]. A total of 82 copies were returned; three copies were eliminated because they were completed by international students who are not from China. Three copies were incomplete and six copies failed the built-in consistency checks in ER levels instrument (see Appendix C for the scoring method for the ethical reasoning instrument). As a result, a total of 70 questionnaires from New Zealand universities could be used for data analysis (see Table 5.1 for the response rate).

5.2.1   Coding of Variables

Individuals' ER levels are represented by P-scores in this study. The Welton et al. (1994) instrument used in this study will produce a P-score (see Appendix C for the detailed scoring process). A higher P-score indicates a higher level of ethical reasoning.

PIE will be represented by the PIE scores. Following similar studies examining ethics perceptions, such as Allmon et al. (1997), PIE is measured using the mean rather than the median value. The PIE score of each individual is the result of 8 minus the mean of 7 questions[16]. Therefore, a higher PIE score suggests a higher perception of the importance of ethics.

In addition to the variables required for hypotheses tests, this study has another variable for further analysis. The university emphasis on ethics education (EEE) will be represented by two groups: High and Low. The EEE score of an individual is the result of seven minus the mean of six questions. From here, the EEE were separated into high and low based on the

---

[15] The difference on P-scores between New Zealand universities is not significant (Std Error = 3.12, Sig. = 1.00).
[16] The PIE and EEE instruments were built so individuals who scored a lower mean would have a higher PIE or EEE. To avoid the misunderstanding in the following discussion, the man of PIE and EEE need to be revised to show that a higher mean indicates a higher PIE or EEE.

sample mean of 5.1602[17]. Participants who have an EEE score higher than 5.1602 were categorised as high EEE; they evaluated the ethics emphasis of their university education higher than those who had an EEE score lower than 5.1602. As a result, 81 out of 181 participants rated low on the university emphasis on ethics education; the other 100 participants rated high.

5.2.2 Grouping

A further grouping is required to identify which nationality group each participant belongs to. Following the grouping process discussed in Section 4.2.1.1, this study has 111 CIC, 23 COS, and 47 NZL. In addition, irrespective participants' nationalities, all 181 participants will be grouped into females or males to examine the gender difference (see Table 5.2 for the summary of participants).

Table 5.2   Participants Grouping

	Females	Males	Total
University A	32	27	59
University B	41	11	52
CIC	73	38	111
COS	16	7	23
NZL	25	22	47
Total	114	67	181

From Table 5.2, in the CIC group, 66% of participants were female (73). In the COS group, 70% of participants were female (16) and only 7 participants were male (30%). In the NZL group, 53% of participants were female (25) and 47% were male. In total of 181 participants, 63% were female and 37% were male. These figures show that the gender distribution in this study is not even. A closer examination of gender distribution shows a higher percentage of females studying an accounting major in China. This is because, in China, people generally believe accounting is about number counting and females are more meticulous with numbers. Therefore, there are more female accounting students than males in Chinese universities. Such a pattern could also be observed in the COS group. However, the numbers of males and females in the NZL group are very close, suggesting there is no such social perception about which gender is more suitable to study accounting in New Zealand.

---

[17] Although median can also be used to categorise participants, this study uses means because the mean and median do not differ a lot (5.1602 for mean and 5.1667 for median).

5.3 Medians, Means and Standard Deviations (S.D.)

After grouping process, the means, medians, and standard deviations (S.D.) for each group are presented in Table 5.3 below.

Table 5.3   Medians, Means and S.D. for P-scores and PIE

	P-Scores			PIE		
	Median	*Mean*	*S.D.*	*Median*	*Mean*	*S.D.*
All 181 participants	33.33	32.56	13.19	5.71	5.64	0.78
Nationality						
University A	26.67	27.23	13.44	5.86	5.74	0.83
University B	33.33	33.78	13.32	5.79	5.65	0.89
CIC	30.00	30.30	13.72	5.86	5.70	0.86
COS	33.33	33.19	7.94	5.86	5.60	0.68
NZL	36.67	37.59	12.75	5.57	5.54	0.64
Gender						
Females	33.33	33.07	13.75	5.71	5.73	0.67
Males	33.33	31.69	12.25	5.71	5.50	0.94
Emphasis on ethics Education						
Low	30.00	31.89	13.38	5.43	5.41	0.92
High	33.33	33.10	13.08	5.86	5.84	0.59

The average P-score for all 181 participants is 32.56 and the average PIE score is 5.64. The P-score of this study is slightly smaller than the P-score (34.28) reported by a prior study using the same instrument (Liyanarachchi & Newdick, 2009). The lower P-score reported by this study could be explained by the fact this study surveyed Chinese and New Zealand students, but Liyanarachchi and Newdick (2009) surveyed only New Zealand participants. However, the P-score reported in this study is within the range of around 35 as suggested by the Rest et al. (1994) for accounting students. It is also within the range of P-scores reported using DIT or Thorne's (2000) instrument (Fleming, et al., 2010; Ge & Thomas, 2008) [18]. Therefore, this

---

[18] See Appendix A for the summary of P-scores from these studies.

suggests that the Welton et al. (1994) instrument used in this study has acceptable test-retest reliability.

The means of the P-scores and PIE for each individual group are listed in Table 5.3. From Table 5.3, NZL show the highest ER levels (average P-score of 37.59) and CIC show the lowest ER levels (average P-score of 30.30). This finding is consistent with prior studies suggesting participants from China would have a lower ER level than other western nations. However, the PIE means of the three national groups are in the reverse order to that of P-scores, where CIC had the highest perception of the importance of ethics (average PIE score of 5.70) and NZL had the lowest (average PIE score of 5.54).

From Table 5.3, female students have higher ER levels (average P-score of 33.07) and higher perceptions on the importance of ethics (average PIE score of 5.73) than male students (average P-score of 31.69 and average PIE of 5.50).

In addition, participants were categorised into High EEE and Low EEE based on their scores from the EEE section in the questionnaire for further analysis. From Table 5.3, participants with a high EEE had higher ER levels (average P-score of 33.10) and higher perceptions of the importance of ethics (average PIE score of 5.84) than participants with low EEE.

5.4 Hypotheses Testing

The result of the Kolomogorov-Smirnov tests suggest the P-scores were normally distributed (Sig of 0.200), but the PIE scores were not (Sig of 0.000). Therefore, ANOVA will be used when examining the P-scores, and non-parametric tests, such as the Mann Whitney U test will be used when examining the PIE.

Because the sample sizes of each group in this study are not equal, the Levene test will be conducted to ensure there is no violation of equality of groups' variance before examining P-scores using ANOVA. The result of the Levene Test (Sig of 0.107) suggests that equality of the groups' variance can be assumed and ANOVA can be used when examining P-scores. To better capture the problem of uneven sample sizes between groups, this study reduced the sample sizes so all groups have equal samples. Appendix E shows the process of sample reduction and the test results of using equal samples. The test results of equal sample sizes are similar to the results reported using original sample data. Therefore, this study will report the test results using the original data.

The results of statistical analyses are reported in Table 5.4 below with full results in Appendix D.

Table 5.4   Results for Hypotheses Testing: P-score

ANOVA: P-scores

	df	Mean Square	*F*	Sig.
Corrected Model	11	285.791	1.713	0.074
Intercept	1	102885.218	616.747	0.000
EEE	1	0.736	0.004	0.947
Gender	1	124.938	0.749	0.388
Nationality	**2**	**932.397**	**5.589**	**0.004***
EEE * Gender	1	1.841	0.011	0.916
EEE * Nationality	2	197.517	1.184	0.309
Gender * Nationality	2	12.83	0.077	0.926
EEE * Gender * Nationality	2	160.975	0.965	0.383
Error	169	166.819		
Total	181			
Corrected Total	180			

* = Significant at 0.05 level

From Table 5.4, the results of the ANOVA show there is no interaction effect among any combination of the three variables: Gender, Nationality, and EEE. Therefore, this study focuses on the main effects of each individual variable to test the hypotheses. University is another variable this study is going to examine. However, Nationality and University are correlated with each other. To avoid the ANOVA assumption of independence, a separate ANOVA will be conducted to examine the variable of University and it is discussed in details in Section 5.6.2.

5.4.1   P-scores, PIE, and Nationality

To achieve the objectives, this study examined three hypotheses related to nationality and P-scores:

H$_1$: *The ethical reasoning level of Chinese accounting students in China is not different from that of New Zealand accounting students.*

H$_5$: *The ethical reasoning level of Chinese overseas accounting students studying in New Zealand is not different from that of Chinese accounting students in China.*

H$_7$: *The ethical reasoning level of Chinese overseas accounting students studying in New Zealand is not different from that of New Zealand accounting students.*

In Table 5.4, there is only one significant (less than 0.05) main effect of nationality on the P-scores (ethical reasoning levels). This means that, when gender and EEE are ignored, the nationality of individuals influenced their P-scores. In other words, the ethical reasoning level

of accounting students is different among CIC, COS and NZL. However, how these three groups differ from each other are more important to this study. Therefore, Post Hoc Multiple Comparisons were conducted to examine the difference in ER levels among these three national groups.

Table 5.5   Post Hoc Tests for Nationality

Bonferroni Multiple Comparisons (P-scores): Nationality

Nationality	Nationality	Mean difference	Std. Error	Sig.
CIC	NZL	-7.29	2.25	0.004*
CIC	COS	-2.89	2.96	0.991
COS	NZL	-4.40	3.29	0.547

* = Significant at the 0.05 level

The Bonferroni Multiple Comparisons test was selected because this method controls the family-wise error rate (Field, 2009). From Table 5.5, the results of the Post Hoc tests shows only Chinese final year undergraduate accounting students have a lower ER level (P-score) than New Zealand final year undergraduate accounting students. The differences in P-scores (ER levels) between CIC and COS, and between COS and NZL, are not significant; they more likely result from chance. Therefore, the results of the statistical analysis suggest hypothesis 1 is rejected, but hypotheses 2 and 3 cannot be rejected.

In addition to the examination of individuals' ER levels, this study also examined the three hypotheses about PIE and nationality:

H_2: *Chinese accounting students in China do not perceive the importance of ethical behaviours differently from New Zealand accounting students.*

H_6: *Chinese overseas accounting students studying in New Zealand do not perceive the importance of ethical behaviours differently from Chinese accounting students in China.*

H_8: *Chinese overseas accounting students studying in New Zealand do not perceive the importance of ethical behaviours differently from New Zealand accounting students.*

The result of the Kolomogorov-Smirnov tests suggest the PIE scores were not normally distributed (Sig of 0.000), so non-parametric tests were conducted to examine PIE. Table 5.6 shows the results of the Mann-Whitney U tests for individuals' PIE scores[19].

Table 5.6   Results for Hypotheses Testing PIE

PIE (Mann-Whitney U test)		
	Z	Asymp. Sig (2-tailed)
CIC v NZL	-1.79	0.073
Females v Males	-0.984	0.325
CIC v COS	-0.742	0.458
COS v NZL	-1.075	0.282
Low EEE v High EEE	-3.347	0.001*

* = Significant at 0.05 level

From Table 5.6, the differences in the perception of the importance of ethics among the three nationality groups (CIC, COS, and NZL) are more likely due to chance (Asymp. Sig: 0.073, 0.458, and 0.282 respectively). The results of the Mann-Whitney U tests showed the difference in PIE between CIC and COS, between CIC and NZL and between COS and NZL are not significant[20]. Therefore, Hypotheses 2, 6 and 8 cannot be rejected. Results suggest accounting students from CIC, COS, and NZL do not have a significantly different perception of the importance of ethics.

5.4.2   ER, PIE, and Gender

There are two hypotheses in this study examining the effect of gender:

H₃: *The ethical reasoning level of female accounting students is not different from that of their male counterparts.*

H₄: *Female accounting students do not perceive the importance of ethical behaviours differently from males.*

From Table 5.4, the ANOVA results show that, irrespective of nationality and EEE, gender does not have a significant effect (sig. = 0.388) on individuals' P-scores (ER levels). In other

---

[19] See Appendix D for full test results.
[20] The Kruskal-Wallis test can be used to examine three or more unrelated groups. The result of Kruskal-Wallis test (Asymp. Sig. = 0.165, df = 2, Chi-square = 3.6) also suggests the PIE among the three groups are not significantly different.

words, the there is no significant difference in average P-score between males and females, so hypothesis 3 cannot be rejected. The results of the statistical analyses suggest female undergraduate accounting students in their final year do not have a significantly different ER level than their male counterparts. The difference of P-scores between males and females is more likely due to chance.

The results of the Mann-Whitney U test in Table 5.6 suggest there is no significant difference in average PIE scores between females and males. Therefore, hypothesis 4 cannot be rejected. The results of the statistical analyses suggest that female undergraduate accounting students in their final year, irrespective of their nationalities and EEE, do not have a significantly different perception of the importance of ethics from their male counterparts.

5.4.3 Results Summary

The results show the ER level difference (P-score) between CIC and NZL is significant. However, the ER level differences between CIC and COS, between COS and NZL and between genders irrespective of their nationalities, are not significant. With regard to PIE, the test results show the differences in PIE between CIC and NZL, between COS and CIC, between COS and NZL and between genders, irrespective of their nationalities, are not significantly different.

Table 5.7   Results Summary

Hypothesis	*Result*
H_1: ER, CIC versus NZL	Rejected
H_2: PIE, CIC versus NZL	Not Rejected
H_3: ER, Females versus Males	Not Rejected
H_4: PIE, Females versus Males	Not Rejected
H_5: ER, COS versus CIC	Not Rejected
H_6: PIE, COS versus CIC	Not Rejected
H_7: ER, COS versus NZL	Not Rejected
H_8: PIE, COS versus NZL	Not Rejected

5.5 Discussion of Results

5.5.1 Objective One - CIC and NZL

The first objective of this study was to determine if the ER levels and PIE are different between CIC and NZL. The results show that CIC have a lower ER than NZL. This finding is consistent with prior studies, such as Tsui & Windsor (2001), Ge & Thomas (2008) and Fleming et al. (2010). Prior studies suggest that auditors from Australia (Tsui & Windsor, 2001), accounting students from Canada (Ge & Thomas, 2008) and accounting students from the United States of America (Fleming et al., 2010) have a higher ER level than their counterparts in China. From the results of prior studies and results of this study, it appears that differences in ER levels exist between China and other western countries. However, the cause of such differences remains unclear. Most prior studies suggested the differences in ER levels between nations can be explained by cultural differences. With the discussion presented in Chapter Two, this study argues that the ER level differences could be explained by national differences, which include cultural differences, industrialisation, political differences, and social factors. How these national differences influence individuals' ER levels requires further information to draw any conclusion. In addition, the difference in ER levels between China and other nations could also be explained by the type of instrument that was developed based on Western ideas. As a result, Chinese participants have difficulties understanding it. However, such an explanation may not be relevant because the accounting discipline is westernised in China.

On the other hand, the difference in PIE between CIC and NZL (0.073) is not significant at the 0.05 level. This finding is contradictory to prior studies' findings that ethics beliefs and acceptance of unethical behaviours will be different among different nations (Allmon et al., 1997; Chung et al., 2007). Although this study employ the significance level of 0.05, some prior studies suggests the significance level of 0.10 is considered appropriate for a study of this nature (Blalock, 1979) and can be found used in some prior studies (including Tsui & Windsor, 2001)[21]. If the significance level of 0.10 was employed in this study, the results of this study would show that CIC have a higher PIE than NZL. The findings of this study, that Chinese accounting students have a significantly lower ER level, but a similar (or higher at 0.10 level) PIE than New Zealand students, support the assumption of a disconnection between ethical beliefs and ethical behaviours in Chinese participants (Chung et al., 2007)[22]. Under the influence of Confucianism, Marxism (Maoism), and Capitalism and Market

---

[21] Tsui and Windsor (2001) examined the ER level differences between China and Australia using 0.10 level.
[22] Discussed in Section 2.5

Economy values (see Figure 5.1), Chinese participants show a different pattern on ER levels and PIE. Because Marxism (Maoism) emphasises economic equality and social welfare, individuals will subconsciously answer "yes" when they face some general questions such as whether they think ethics is important or not. The influence of Confucianism will lead individuals to select those most favourable answers as the emphasis from humility. This could explain the better performance by CIC on the PIE instrument. The influence of Confucianism also explains the high percentage of eliminated returned questionnaires, which they failed the built-in consistency checks (see Appendix C for scoring methods for ethical reasoning instrument) in the Chinese sample (77 out of 227, about 34%, from Chinese universities compared with 6 out of 120, 5%, from New Zealand universities [23]). Lastly, the market economy puts pressure on Chinese participants to chase personal gains. A lower ER level from Chinese participants then could be the result of such pressure from the market economy. Previous studies have shown that there is a decline in the standards of business ethics and social responsibility since China shifted to a market economy (Harvey, 1999).

Figure 5.1 Cultural Influences on Chinese Individuals
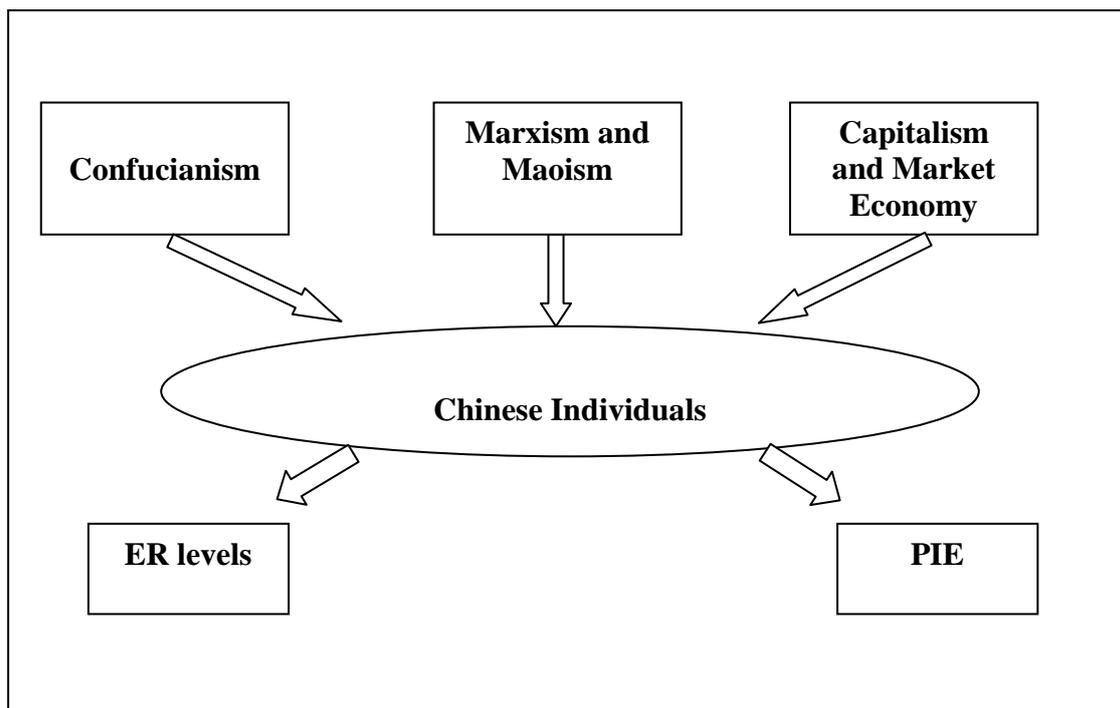
Thus, the results of this study show the ER levels are different between CIC and NZL, but there is no significant difference in PIE between the two nations. This contradictory performance of Chinese accounting students on ER levels and PIE could be explained by the influence of frequent culture changes in China during the 20th century. This study therefore

---

[23] See Table 5.1

criticises the assumption of the stability of cultures adopted by some prior studies. The cultural differences between China and other nations are not simply the differences between Confucianism and others. It is inappropriate to simply label Confucianism as a cultural value that would always lead to a lower ethics level. However, the results could also be interpreted that New Zealand students have a higher ER level but a similar PIE. There is no reasonable explanation from the literature if the result is interpreted as above.

5.5.2 Objective Two - Females Versus Males

The second objective of this study is to determine if the ER levels and PIE are different between males and females, irrespective of nationalities. The results of the hypotheses tests suggest there is no gender difference in terms of ER levels and PIE.

Although, on average, females have a higher ER level and PIE than males, the difference is not significant. The ethical reasoning level of female accounting students is not different from that of their male counterparts, and female accounting students do not perceive the importance of ethical behaviours differently from males. The result of this study is consistent with prior studies that suggest that there is no gender difference between upper-level accounting students regarding their ethics levels (Geiger & O'Connell, 1998). Results also suggest no gender difference exists across nations since the interaction effect of gender and nationality was not significant (see Table 5.4). This finding contrasts with the results of Stimpson et al.'s (1992) study that gender differences existed across nations and such differences were rooted in biological differences.

Therefore, the result of no gender difference in this study questions the assumption that the gender difference is the result of biological differences. Maybe individuals' biological differences ought to not be the focus of the gender difference studies. As suggested by McPhail and Walters (2009), the focus of the gender differences studies should be on the differences between the masculine personality and the feminine personality, not biological gender differences.

Two possible explanations for no gender difference found in this study exist. The first explanation suggests that this study's results of no gender difference could be correlated with the business education students have received, which promotes unethical behaviours to some extent (McPhail, 2001; Rest, 1986). Business education promotes the characteristics of individuals to be masculine, irrespective of whether they are males or females (Bebbington et al., 1997). As a result, business students and accounting students' female traits and attributes are suppressed (Gammie & Gammie, 2009) and both males and females have a similar low

ethics levels. The second explanation suggests the finding of no gender difference shows the positive effect of ethics education. Myyry and Helkama (2002) suggested that ethics education would improve the ethics level of individuals and favourably reduce the difference between genders in ethics levels.

5.5.3 Objective Three - COS

The third objective of this study is to examine how COS differ from CIC and NZL, in the contexts of their ER levels and PIE. In other words, this study investigates the impact of different backgrounds and the impact of different study experiences on individuals' ER levels and PIE. The results of this study show that COS do not have a significantly different ER level or PIE than either CIC or NZL.

As discussed in Section 2.6.3, the assumption of cultural homogeneity, which has been adopted by prior cross-cultural studies, is criticised because these studies dismissed the presence of Chinese immigrants in their western samples. Tan and Chow (2009) investigated the value orientations of Chinese-Americans and found this group of people showed more distinctive Chinese cultural value traits. In other words, although Chinese-Americans were born and lived in a western country, they still showed a strong connection with Chinese culture, and such a strong connection could influence individuals' values. More importantly, such a connection will not be dismissed through the generations. Studies found such a connection persisted over time in first-generation and second-generation Chinese immigrants (Rosenthal & Feldman, 1992). Chinese immigrants in New Zealand have a similar situation showing strong ties with the Chinese ethnic group (Eyou et al., 2000). It is thus not surprising to see that this study found the differences in ER levels and PIE between COS and CIC are not significant. The findings of this study support the assumption that background culture has a strong influence on individuals and such an influence could persist over time (Tan & Chow, 2009). In addition, this study supports the criticism on prior studies and suggests ignoring immigrants when comparing different nations is inappropriate.

On the other hand, the pressures to survive in a new country faced by immigrants mean they have to shape their values, ethics and behaviours. In contrast to prior studies, the finding of this study suggests there is no significant difference in ER levels or PIE between COS and NZL. As discussed above, Tan and Chow (2009) showed Chinese in the United States of America had a similar traits to Chinese in China, but significantly different from Caucasians in the United States of America due to the strong influence of their background culture. Or, as found by Tan (2002), entrepreneurs working abroad showed similar decision-making

characteristics to their resident counterparts, but different from counterparts in their home countries. However, this study found that COS were not different from CIC, not from NZL. Because PIE is not significantly different among CIC, COS and NZL, the focus will be how ER levels changed from significantly different between CIC and NZL to not significantly different between COS and NZL. The explanation for this change could relate to the living environment changes. When making decisions, COS may have to consider what is appropriate to do in New Zealand, with the influence of their cultural background. Such a consideration could come from the living experience, from which COS identify and learn what is not acceptable to do in New Zealand. Such a consideration could also be the result of the different education system they have gone through. Unlike CIC, most of COS immigrated to New Zealand after they completed their high school courses and before they started study in universities. COS do not receive pressures and influences from the Market Economy values as CIC do. Instead, COS are influenced more from the humanity in developed countries. This then explains the no-significant difference in ER levels between COS and NZL.

The non-significant difference in ER levels between COS and CIC could be interpreted as the strong and persistent influence from their background culture. In addition, COS are influenced by a combination of different cultural values as well, like CIC, but a different combination of Confucianism, Marxism, and Humanity. Such a combination could explain the decreased gaps in ER levels and PIE between COS and NZL compared with the differences between CIC and NZL. As assumed by this study, the difference between CIC and COS would be the studying and living experience differences after Chinese students decided to study overseas. Therefore, the change from significant difference on ER levels between CIC and NZL to non-significant difference between COS and NZL could be explained by those different experiences. Another explanation for such a change in ER levels could relate to the possibility that COS are more familiar with the instrument and the structure of the instrument as a result of the New Zealand education they have received. However, this study still could not provide direct evidence to support the influence of education, nor to conclude whether such a change is internalisation (integration into individuals' inner principles). It is thus a limitation of this study that is discussed in the following chapter.

5.6 Further Analysis and Discussion

In addition to the hypotheses tests, this study analysed the data further. This study examined whether the emphasis on ethics education between Chinese universities and New Zealand universities differed. Also, this study investigated whether the ER levels and PIE were

different between students from the different institutions in China and, if so, how they are differ from each others.

5.6.1 University Emphasis on Ethics Education

In Section 3 of the survey questionnaire, participants were asked to rate how much emphasis their courses had on the discussion of ethics, the emphasis on ethics education (EEE). A higher score from this section indicates that individuals believe their university courses emphasise more on the discussion of ethics. Because the distribution of EEE is not normal, Mann-Whitney U tests were conducted to examine whether there is a difference between students from Chinese universities (i.e. CIC) and students from New Zealand universities (i.e. COS and NZL). The average score of participants in Chinese universities was 5.18, whereas the average score from participants in New Zealand universities was 5.13. The results suggest there is no significant difference ($z = -0.372$, sig. = 0.710) between Chinese universities and New Zealand universities.

In addition, Pearson Correlation tests were conducted using all 181 participants. The results showed there is a significant positive correlation between EEE and PIE (0.389, sig. = 0.000)[24]. This result suggests students who rate high on EEE should have a higher perception on the importance of ethics than those who rate low.

The participants were then categorised into High EEE (100 participants) and Low EEE (81 participants) based on the average EEE score (5.1602). From Table 5.4 above, the results of ANOVA for ER show that there is no significant effect of EEE on individuals' ER levels. Although Table 5.3 above shows individuals with a low EEE have a lower ER (mean of 31.89) than those with a high EEE (mean of 33.10), such a difference is more likely due to chance. Table 5.6 shows there is a significant difference (sig. of 0.001) on PIE between the High EEE group and the Low EEE group. This result suggests students who have a higher EEE should have a higher perception of the importance of ethics than others.

The inconsistent results between ER levels and PIE could be explained by the different nature of ER levels and PIE. ER levels refer to the decision process used by individuals to make judgements, but PIE refers to the ethical beliefs of individuals. Other considerations could influence the decision making and ER levels could be influenced by the ethical issue itself (Guffey & McCartney, 2008). This study found students who believe the education they received emphasised more on ethics would have a more ethical personal belief system (a higher PIE), nut not a higher ER level as other influencing factors exist.

---

[24] See Appendix D for full test results.

5.6.2 Institutional Differences

Although the main concern of this study is the nationality of individuals, there is a hidden independent variable, namely University. One assumption of this study is that there is minimal difference between New Zealand universities in terms of what is taught in accounting courses, the situations in Chinese universities tells a different story. Tertiary educators in China are classified into three levels, namely First-Class universities, Second-Class universities and colleges. Universities at the higher level not only have priority to matriculate students with higher grades in the University Entrance Examination, but also have better teaching resources. Because this study was conducted in one Chinese First-Class university, one Chinese Second-Class university, and two New Zealand universities, it is interesting to find out whether institutional differences exist between different universities, especially between the two Chinese universities.

However, this variable cannot be included with the variable nationality when conducting ANOVA, because these two independent variables are correlated with each other. Individuals who indicated they were studying in a New Zealand university fall into either COS or NZL, whereas those who indicated they were studying in a Chinese university are CIC. To avoid the violation of the ANOVA assumption of independence, a separate ANOVA was conducted to examine the variable of university[25].

Table 5.8   Tests Results for University (ER)

ANOVA: P-scores				
	df	Mean Square	*F*	Sig.
Corrected Model	11	420.571	2.661	0.004
Intercept	1	143329.713	906.882	0.000
EEE	1	247.222	1.564	0.213
Gender	1	14.480	0.092	0.763
University	**2**	**1665.789**	**10.540**	**0.000***
Gender * EEE	1	118.328	0.749	0.388
Gender * University	2	77.964	0.493	0.611
EEE * University	2	435.474	2.755	0.066
Gender * EEE * University	2	211.504	1.338	0.265
Error	169	158.047		
Total	181			
Corrected Total	180			

* = Significant at 0.05 level

---

[25] The results of Levene's Test of Equality of Error Variances ($F = 0.948$, Sig. $= 0.496$) suggests the equality of groups' variance can be assumed and ANOVA can be used.

From Table 5.8, the results of ANOVA for universities show a very similar pattern to Table 5.4 above for nationalities. The only variable that has a significant effect on the P-score is university (sig of 0.000). The interaction effect on P-scores from any combination of the three variables (EEE, Gender and University) is not significant.

Table 5.9   Tests Results for University (PIE)

PIE (Kruskal-Wallis Test)

Chi-Square	*df*	Asymp. Sig (2-tailed)
3.381	2	0.184

The non-parametric test (Kruskal-Wallis Test) suggests that there is no significant difference in PIE among individuals from four universities (sig of 0.184; see Table 5.9). To better understand the difference in P-scores among universities, Post Hoc tests were conducted and are reported in Table 5.10:

Table 5.10 Post Hoc Tests for University (ER)

Bonferroni Multiple Comparisons (P-scores): University

University	University	Mean difference	Std. Error	Sig.
First-Class	Second-Class	-6.55	2.39	0.020*
First-Class	NZ Universities	-8.91	2.22	0.000*
Second-Class	NZ Universities	-2.36	2.30	0.919

* = Significant at 0.05 level

As assumed, there is no significant difference in P-scores between universities in New Zealand[26]. However, the results show a very interesting and surprising suggestion that the Second-Class Chinese university has a significantly higher P-score than the First-Class Chinese university, and Second-Class Chinese university has a similar P-score to New Zealand universities. The First-Class Chinese university, on the other hand, has significantly lower P-score than the other universities[27]. The selection of two different level Chinese universities aimed to better reflect the population in China. However, such a significant difference on P-scores between the two Chinese universities reported in Table 5.10 creates a

---

[26] Tests were conducted to examine the difference in ER levels between NZ universities. Results (Sig = 1.00) showed there is no difference in ER levels (P-scores) between NZ universities.

[27] The influence of COS in the examination of variable University was considered and the results of Post Hoc tests after removing COS from the NZ universities sample are similar to the results presented in Table 5.10. See Appendix F for full test results after COS were removed.

question about whether it is appropriate to classify individuals from these two Chinese universities into one group. In other words, is the comparison between Chinese students and New Zealand students, or is the comparison between aggregation of two Chinese universities and New Zealand students? This limitation of this study is discussed in following chapter.

The finding of the significantly lower ER levels of the First-Class Chinese university students compared with not only to students from New Zealand universities, but also students from a Second-Class Chinese university, is more interesting and surprising. Although First-Class universities have great reputations in China, have priority to matriculate students with higher grades in University Entrance Examination and have better teaching resources, this finding suggests individuals' ER levels are not necessarily related to the level of institutions. A closer examination of the difference between students from First-Class Chinese universities and students from Second-Class universities is essential in this study, and the finding of this closer examination contradicts the assumption that studying in a top institution leads to a higher ER level.

The finding of this study could be explained by the differences in teaching materials between the two universities. However, after searching and comparing the courses contents of two universities, there is no significant difference between two universities. It is possible that the teaching focus of lecturers between two universities could differ and such a difference could influence the difference in ER levels between the two universities. However, there is no objective evidence to support such explanation.

The finding of this study could also be explained by the difference in the external environment. The First-Class university (Xiamen University) is located in Xiamen, a metropolitan city, which is also one of most industrialised and modern cities in China. On the other hand, the Second-Class university (Putian University) located in Putian, which is a small developing city not far from Xiamen. The difference between the two cities is then limited to the economic development, because these two cities are very similar on the other social and cultural aspects. Will the different economic development levels between two cities influence individuals' ER levels? Redfern and Crawford (2010) examined 211 managers from 21 different provinces, autonomous regions and municipalities in China, and found participants from highly industrialised regions had a higher moral judgement than participants from the less industrialised regions. Their findings are consistent with other prior studies including the comparison between Mainland China and Hong Kong (McDonald & Kan, 1997). However, the findings of these prior studies could not explain the lower ER levels of students from a highly industrialised and developed city (Xiamen) in this study. In contrast,

Harvey (1999) showed there has been a decline in the standards of business ethics and social responsibility since China shifted to a market economy. Participants from the Second-Class university (Putian) may receive less competition pressure and pressure from the Market Economy. In other words, a higher ER level from the Second-Class university students could correlate with less negative influence from Darwinian Theory (law of the jungle).

Most studies that compared Chinese students with students from other nations did not state which Chinese university their studies were conducted at the exception was Fleming et al. (2010) who stated their study was conducted in three universities in Nanjing, which is another big city in China. It could be expected that there is a limited number of studies conducted in small cities, since most famous Chinese universities are located in big cities. Nevertheless, if the above supposition is valid, it will be more reasonable to draw the relationship between ER levels and regional economic development as a U-shape curve, rather than a linear curve. That is to say, the ER level could drop during the developing period while there is limited resource and increased competition. Once development reaches a certain point, the ER levels should increase due to the abundant resources, completeness of social and legal system and increased awareness of social responsibilities. However, without the support from the literature, whether this supposition is valid remains unknown.

5.7 Chapter Summary

This chapter tested the eight hypotheses developed in this study. The results of test show that only Hypothesis One (CIC Vs NZL, ER levels) was rejected. The findings of this study suggest:

1. There is significant difference on ER level between CIC and NZL, which be the result of the national differences between China and New Zealand, while the no significant difference on PIE could correlate with the cultural changes in China, which would influence CIC.

2. There is no significant difference on either ER levels or PIE between genders irrespective of nationality. This finding suggests the focus of gender difference studies should not be biological gender difference, but rather the difference between the masculine personality and the feminine personality.

3. There is no significant difference on either ER levels or PIE between CIC and COS or between COS and NZL. This finding supports the criticism of the three culture

assumptions discussed in Section 2.6.3. This study suggests COS are influenced both by their background culture and by their study and living experiences in New Zealand.

In addition to the hypotheses testing, this study also analysed the relationship between EEE and ethics values, and the institutional differences. This study suggested there is a positive relationship between EEE and PIE, but not with ER levels, due to the different nature between ER levels and PIE. One of the most important and interesting findings in this study is the difference on ER levels between a Chinese First-Class university and Second-Class university. The finding of this study suggests individuals' ER levels are not necessarily correlated with the level of institutions, but are possibly correlated with regional economic development.

Along with the findings and discussion presented in this chapter, the following chapter summarises the contributions this study makes to the body of accounting ethics knowledge.

Chapter 6

Conclusions, Limtations and Future Research

6.1 Introduction

This chapter provides the conclusions from this study and describes several contributions this study makes to the body of accounting ethics knowledge. The limitations and suggestions for future research are also discussed.

6.2 Conclusions and Contributions

This study provides better insight into the influence of demographic characteristics for individuals' ER levels and PIE by surveying final year undergraduate accounting students from two Chinese universities and two New Zealand universities. As discussed in Chapter Two, the review of the literature identified several conceptual gaps exist in the body of accounting ethics knowledge, including:

- Criticisms[28] of the assumptions employed by most prior cross-cultural studies;

- Contradictory results on the gender differences about ER levels and PIE; and

- Contradictory results from prior studies about the effect of education on individuals' ER levels and PIE.

Employing the Welton et al. (1994) instrument to measure individuals' ER levels along with the questions developed by researcher, this study examined the influence of nationality, gender and living and studying experience on individuals' ER levels and PIE. A closer examination of COS provides better insights into the influence of individuals' demographic characteristics.

In particular, this study found, as discussed in Chapter Five:

- The performance of CIC on ER and PIE compared with NZL supports the assumption about the disconnection between ethical beliefs and ethical behaviours in Chinese participants (Chung et al., 2007). This study suggests such disconnection could be the result of cultural changes in China during the last century and a lower ER level observed in Chinese participants is not necessarily correlated to Confucianism.

---

[28] See Section 2.6.3 for discussion on these criticisms.

- The no significant difference on either ER levels or PIE between genders and no gender difference existing across nations suggest the focus of gender difference studies should be the differences between the masculine personality and the feminine personality.

- The finding of no significant difference on either ER levels or PIE between COS and CIC, or between COS and NZL suggests both background and living and studying experience could influence the ethics level of individuals. This finding also further supports the necessity of isolating immigrants from samples when comparing individuals from different nations.

In addition to the hypotheses developed, this study also examined the relationship between EEE and ER levels and PIE. This study suggests there is a significantly positive relationship between ethics education and PIE, but no significant effect of ethics education on ER levels. The inconsistent results between ER levels and PIE could be explained by the different nature between ER levels and PIE, as discussed in Section 2.4.

The institutional difference in Chinese universities was also examined in this study. This study found that participants from a First-Class Chinese university had the lowest ER levels compared with New Zealand universities and a Second-Class Chinese university, despite the fact that the First-Class university has priority to matriculate students with higher grades in University Entrance Examination, has a better reputation in accounting majors, and has better teaching resources than a Second-Class university. This study proposes that ER levels are not necessarily correlated with the level of institutions they attend, but is more likely linked with regional economic development levels. This study further suggests that the relationship between ER levels and regional economic development should be a U-shape curve. In other words, ER levels could drop during the developing period, but will increase after the development reaches a certain point with abundance in resources, completeness of social and legal system, and the increased awareness of social responsibilities.

6.3 Limitations

However, it is important to acknowledge the key limitations of this study. Early discussion in previous chapters considered these limitations which include the selection bias, the reliability of the Welton et al. (1994) ER instrument, the sample size (particularly the sample size of COS), the lack of direct evidence to support the effect of ethics education, and the problems associated with the institutional differences found in Chinese universities. How these limitations affect the interpretations of the results will be discussed.

Firstly, selection bias is a limitation of this study, and a limitation for all studies using survey questionnaires. Because the survey was conducted on a voluntary basis, those who voluntarily completed the questionnaires might have a stronger sense of responsibility about the ethics than those who chose not to participate. It is questionable whether the ethical values of those who chose not to participate would be represented in the results. Therefore, the generalisation of results to whole population could be criticised.

Secondly, an extremely low score on the Cronbach's Alpha for the ER instrument in this study is another limitation. The Cronbach's Alpha for the ER instrument in this study is 0.169 (number of items: 3), which does not pass the 0.70 acceptable levels nor did it conform for other studies. This low score places serious questions over the reliability of the ER instrument used in this study and suggests that any results obtained from the ER instrument may be attributable to measurement errors (Norusis, 2008).

Thirdly, the unequal sample sizes of the different groups in this study could affect the results of ANOVA. In this study, CIC has the largest sample size of 111, the NZL group has 47 participants and COS has the smallest sample size of 23. Although a separate test was conducted after the sample reduction and the results from reduced sample are not significantly different from the results reported in this study using original sample, the small sample size may have some effect on the generalisability of the results.

Lastly, the institutional differences in Chinese universities found in this study also create another limitation of this study. The results from New Zealand universities could be generalised to the population of New Zealand accounting students because there is minimal difference on what is taught in accounting courses between New Zealand universities and no institutional difference was found among participants from different New Zealand universities. New Zealand is also a small country with less diversity. However, China is highly diverse, with numerous subcultures. Criticism arises whether participants from one province of China could represent the population of China. This study tried to have a sample group that could reflect the population of China by conducting the survey in one First-Class university, which would attract more students from other provinces of China, and one Second-Class university. However, the finding of institutional differences between the First-Class university and Second-Class university in this study raises another question whether it is appropriate to classify individuals from these two Chinese universities into one group. In other words, is the comparison between Chinese students and New Zealand students, or is the comparison between aggregation of two Chinese universities and New Zealand students?

6.4 Future Research

The discussion of the results presented in Chapter Five in this study presented a number of directions for future research. Some of the most important findings in this study are related to Chinese participants and Chinese overseas students studying in New Zealand. Whether the findings of this study can be generalised requires great attention. In addition, the proposition of this study about the relationship between regional economic development and ER levels requires empirical evidence from future studies. In particular, this study suggests a number of future study directions.

First, there is a lack of direct evidence on the effect of ethics education on individuals' ER levels and PIE from this study. Although the results of this study suggest the change from significant difference on ER levels between CIC and NZL to non-significant difference on ER levels between COS and NZL could be the result of COS studying in New Zealand universities, such a change could correlate with the change of living experience and study experiences. There is no evidence in this study to suggest there is a significant difference in ethics education between Chinese universities and New Zealand universities. Therefore, the findings of this study on COS could not conclude anything about the impact of ethics education. There is still a need to continue examining the impact of ethics education on individuals' ER levels and PIE. There is also a need to develop an effective research method which can isolate other factors and examine directly the correlation between ethics education and individuals' ethics. The lack of direct evidence in this study and the existing criticisms of the methods (Group Comparison and Longitudinal Comparison) used in prior studies suggests the conclusions about the impact of ethics education could not be reached without an effective research method.

Secondly, future studies may increase sample sizes to improve the generalisability of the findings. Future studies examining other countries using the method discussed in this study would improve understanding of the immigrants and overseas students.

Thirdly, future studies examining Chinese participants should consider following options. A comparison among participants from big industrialised cities and small developing cities in China would add more insight into the understanding of Chinese participants. Alternatively, there is a call for studies to examine Chinese participants from a wide range, rather than just one university or province.

References

Abdolmohammadi, M.J., & Ariail, D.L. (2009). A Test of the Selection-Socialization Theory in Moral Reasoning of CPAs in Industry Practice. *Behavioral Research in Accounting. 21*(2), 1-12.

Adams, B.L., Malone, F.L., & James, W. (1995). Confidentiality Decisions: The Reasoning Process of CPAs in Resolving Ethical Dilemmas. *Journal of Business Ethics. 14*(12), 1015-1020.

Adkin, N., & Radtke, R.R. (2004). Students' and Faculty Members' Perceptions of the Importance of Business Ethics and Accounting Ethics Education: Is There an Expectations Gap? *Journal of Business Ethics. 51*, 279-300.

Ahmad, N.H., & Seet, P. (2010). Gender Variations in Ethical and Socially Responsible Considerations among SME Entrepreneurs in Malaysia. *International Journal of Business and Society. 11*(1), 77-88.

Ahmed, M.M., Chung, K.Y., & Eichenseher, J.W. (2003). Business Students' Perception of Ethics and Moral Judgement: A Cross-Cultural Study. *Journal of Business Ethics. 43*, 89-102.

Allmon, D.E., Chen, H.C.K., Pritchett, T.K., & Forrest, P. (1997). A Multicultural Examination of Business Ethics Perceptions. *Journal of Business Ethics. 16*, 193-188.

Ang, S.H., & Leong, S.M. (2000). Out of the Mouths of Babes: Business Ethics and Youths in Asia. *Journal of Business Ethics. 28*(2), 129-144.

Aranya, N., Barak, A., & Amernic, J. (1981). A Test of Holland's Theory in a Population of Accountants. *Journal of Vocational Behavior. 19*(1), 15-24.

Aranya, N., Lachman, R., & Amernic, J. (1982). Accountants' Job Satisfaction: A Path Analysis. *Accounting, Organizations and Society. 7*(3), 201-215.

Armstrong, M.B. (1987). Moral Development and Accounting Education. *Journal of Accounting Education. 5*, 17-27.

Armstrong, M.B. (1993). *Ethics and Professionalism for CPAs.* Cincinnati, OH: South-Western.

Armstrong, M.B. (2002). Ethics Issues in Accounting. In N.E. Bowie (Ed.), *The Blackwell Guide to Business Ethics* (pp. 145-164). Oxford: Blackwell.

Armstrong, M.B., Ketz, J.E., & Owsen, D. (2003). Ethics Education in Accounting: Moving toward Ethical Motivation and Ethical behaviour. *Journal of Accounting Education. 21*, 1-16.

Axinn, C.N., Blair, M.E., Heorhiadi, A., & Thach, S.V. (2004). Comparing Ethical Ideologies across Cultures. *Journal of Business Ethics. 54*, 103-119.

Batson, C.D., Collins, E., & Power, A.A. (2006). Doing Business after the Fall: The Virtue of Moral Hypocrisy. *Journal of Business Ethics. 66*(4), 321-335.

Bebbington, J., Thomson, I., & Wall, D. (1997). Accounting Students and Constructed Gender: An Exploration of Gender in the Context of Accounting Degree Choices at Two Scottish Universities. *Journal of Accounting Education. 15*(2), 241-267.

Beltramini, R.F., Peterson, R.A., & Kozmetsky, G. (1984). Concerns of College Students Regarding Business Ethics. *Journal of Business Ethics. 3,* 195-200.

Bernardi, R.A. (1994). Validating Research Results When Cronbach's Alpha is Below 0.70: A Methodological Procedure. *Educational and Psychological Measurement. 54*(3), 766-775.

Bernardi, R.A., Downey, A., Massey, D.W., & Thorne, L. (2001). Critical Thinking and the Moral Reasoning of Intermediate Accounting Students. *Research in Accounting Ethics. 8*, 73-91.

Betz, M., O'Connell, L., & Shepard, J. (1989). Gender Differences in Proclivity for Unethical Bahaviour. *Journal of Business Ethics. 8*(5), 321-324.

Blalock, H.M.Jr. (Ed.). (1979). *Social Statistics*. McGraw-Hill

Blodgett, J.G., Lu, L.C., Rose, G.M., & Vitell, S.J. (2001). Ethical Sensitivity to Stakeholder Interests: A Cross-Cultural Comparison. *Academy of Marketing Science. 29*(2), 190-202.

Burks, B.D., & Sellani, R.J. (2008). Ethics, Religiosity and Moral Development of Business Students. *Journal of Leadership, Accountability and Ethics.* Fall, 49-70.

Burnaz, S., Atakan, M.G.S., Topcu, Y.I., & Singhapakdi, A. (2009). An Exploratory Cross-Cultural Analysis of Marketing Ethics: The Case of Turkish, Thai, and American Businesspeople. *Journal of Business Ethics. 90*, 371-382.

Cagle, J.A.B., & Baucus, M.S. (2006). Case Studies of Ethics Scandals: Effects on Ethical Perceptions of Finance Students. *Journal of Business Ethics. 64*, 213-299.

Cagle, J.A.B., Glasgo, P.W., & Holmes, V.M. (2008). Using Ethics Vignettes in Introductory Finance Classes: Impact on Ethical Perceptions of Undergraduate Business Students. *Journal of Education for Business. 84*(2), 76-83.

Campbell, J.L. (2007). Why Would Corporations Behave in Socially Responsible ways? An Institutional Theory of Corporate Social Responsibility. *Academy of Management Review. 32*(3), 946-967.

Carlson, P.J., & Burke, F. (1998). Lessons Learned from Ethics in the Classroom: Exploring Student Growth in Flexibility, Complexity and Comprehension. *Journal of Business Ethics. 17*(11), 1179-1187.

Chan, S.Y., & Leung, P. (2006). The Effects of Accounting Students Ethical Reasoning and Personal Factors on their Ethical Sensitivity. *Managerial Auditing Journal. 21*(4), 436-457.

Chung, K.Y., Eichenseher, J.W., & Taniguchi, T. (2007). Ethical Perceptions of Business Students: Differences between East Asia and the USA and Among "Confucian" Cultures. *Journal of Business Ethics. 79*, 121-132.

Cohen, J., Pant, L., & Sharp, D. (1998) Are Women held to a Higher Moral Standard than Men? Gender Bias among University Students. *Teaching Business Ethics. 2*, 197-209.

Cooley, D. R. (2004). The Moral Paradigm Test. *Journal of Business Ethics. 50*(3), 289-294.

Cowton, C.J. (2009). Accounting and the Ethics Challenge: Re-Membering the Professional Body. *Accounting and Business Research. 39*(3), 177-189.

Ding, D.D. (2006). An Indirect Style in Business Communication. *Journal of Business and Technical Communication. 20*(1), 87-100.

Duska, R.F., & Duska, B.S. (2003). *Accounting Ethics.* MA: Blackwell Publishing.

Elias, R.Z. (2006). The Impact of Professional Commitment and Anticipatory Socialization on Accounting Students' Ethical Orientation. *Journal of Business Ethics. 68*, 83-90.

England, G.W. (1975). *The Manager and His Values: An International Perspective.* Cambridge: Ballinger Publishing Company.

Eyou, M.L., Adair, V., & Dixon, R. (2000). Cultural Identity and Psychological Adjustment of Adolescent Chinese Immigrants in New Zealand. *Journal of Adolescence. 23*(5), 531-543.

Fatt, J.P.T. (1995). Ethics and Accountant. *Journal of Business Ethics. 14*(12), 997-1004.

Feldman, H., & Thompson, R. (1990). Teaching Business Ethics: A Challenge for Business Educators in the 1990s. *Journal of Marketing Education. 12*, 10-22.

Field, A. (2009). *Discovering Statistics Using SPSS.* London: SAGE Publications.

Finn, D.W., Munter, P., & McCaslin, T.E. (1994). Ethical Perceptions of CPAs. *Managerial Auditing Journal. 9*(1), 23-28.

Fleming, D.M., Chow, C.W., & Su, W. (2010). An Exploratory Study of Chinese Accounting Students' and Auditors' Audit-specific Ethical Reasoning. *Journal of Business Ethics. 94*(3), 353-369.

Forrest, P., & Pritchett, T.K. (1990). Business Students' Perception of Ethics in the Classroom. *Journal of Midwest Marketing. 5*, 117-124.

Franke, G.R., Crown, D.F., & Spake, D.F. (1997). Gender Differences in Ethical Perceptions of Business Practices: A Social Role Theory Perspective. *Journal of Applied Psychology. 82*(6), 920.

Frankel, M.S. (1989). Professional Codes: Why, How and with What Impact? *Journal of business Ethics. 8*, 109-115.

Fulmer, W. & Cargile, B. (1987). Ethical Perceptions of Accounting Students: Does Exposure to a Code of Professional Ethics Help? *Issues in Accounting Education. 2,* 207-217.

Gammie, E., & Gammie, B. (2009). The Moral Awareness of Future Accounting and Business Professionals. *Pacific Accounting Review. 21*(1), 48-73.

Gautschi, F.H., & Jones, T.M. (1998). Enhancing the Ability of Business Students to Recognize Ethical Issues: An Empirical Assessment of the Effectiveness of a Course in Business Ethics. *Journal of Business Ethics. 17*, 205-216.

Ge, L., & Thomas, S. (2008). A Cross-Cultural Comparison of the Deliberative Reasoning of Canadian and Chinese Accounting Students. *Journal of Business Ethics. 82*, 189-211.

Geiger, M., & O'Connell, B. (1998). Accounting Students Ethical Perceptions: an Analysis of Training and Gender Effects. *Teaching Business Ethics. 2*(4), 371-388.

Ghoshal, S. (2005). Bad Management Theories Are Destroying Good Management Practices. *Academy of Management Learning & Education. 4*(1), 75-91.

Gibbins, M., & Mason, B. (1988). *Professional Judgment in Financial Reporting.* Toronto: Canadian Institute of Chartered Accountants.

Gilligan, C. (1977). In a Different Voice: Women's Conceptions of Self and Morality. *Harvard Education Review*. *47*(4), 484.

Glenn, J.R. (1992). Can a Business and Society Course Affect the Ethical Judgement of Future Managers? *Journal of Business Ethics. 11*(3), 217-223.

Glover, S., Bumpus, M., Sharp, G., & Munchus, G. (2002). Gender Differences in Ethical Decision Making. *Women in Management Review*. *17*(5), 217-227.

Guffey, D.M., & McCartney, M.W. (2008). The Perceived Importance of Ethical Issue as a Determinant of Ethical Decision-making for Accounting Students in an Academy Setting. *Accounting Education. 17*(3), 327-348.

Harbison, F., & Myers, C.A. (1959). *Management in the Industrial Journeys Through 17 Countries.* CA: Sage, Thousand Oaks.

Harkness, S., Carolyn, P. E., & Charles, M.S. (1981). The Claim to Moral Adequacy of a Highest Stage of Moral Judgement. *Development Psychology. 17*, 595-603.

Harris, J. (1989). Ethical Values and Decision Processes of Male and Female Business Students. *Journal of Education for Business. 64*, 234-238.

Harvey, B. (1999). Graceful Merchants: A Contemporary View of Chinese Business Ethics. *Journal of Business Ethics. 20*(1), 85-92.

Herington, C., & Weaven, S. (2008). Improving Consistency for DIT Results Using Cluster Analysis. *Journal of Business Ethics. 80*(3), 499-514.

Hoffman, J.J. (1998). Are Women really more Ethical than Men? Maybe It Depends on the Situation. *Journal of Managerial Issues. 10*(1), 60-73.

Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviours, Institutions, and Organizations across Nation.* NY: Sage.

Immigration New Zealand Statistics. (2010, June 06). Retrieved August 16, 2010, from http://www.educationnz.org.nz/policy/statistics/market/China%20Statistics%20at%20Jun%2010.xls

Jeffrey, C., Weatherholt, N., & Lo, S. (1996). Ethical Development, Professional Commitment, and Rule Observance Attitudes: A Study of Auditors in Taiwan. *The International Journal of Accounting. 31*(3), 365-379.

Jones, T.M. (1991). Ethical Decision Making by Individuals in Organizations: an Issue-contingent Model. *Academy of Management Review. 16*(2), 366-395.

Jones, M.T. (1999). The Institutional Determinants of Social Responsibility. *Journal of Business Ethics. 20*(2), 163-179.

Jones, T., Massey, D.W., & Thorne, L. (2003). Auditors' Ethical Reasoning: Insights from Past Research and Implication for the Future. *Journal of Accounting Literature. 22*, 45-103.

Jones, D.A. (2009). A Novel Approach to Business Ethics Training: Improving Moral Reasoning in Just a Few Weeks. *Journal of Business Ethics. 88*(2), 367-379.

Kaplan, S., Pany, K., Samuels, J., & Zhang, J. (2009). An Examination of the Association Between Gender and Reporting Intentions for Fraudulent Financial Reporting. *Journal of Business Ethics. 87*, 15-30.

Kidwell, J.M., Steven, R.E., & Bethke, A.L., (1987). Differences in Ethical Perceptions between Male and Female Managers: Myth or Reality? *Journal of Business Ethics. 6*(6), 489-493.

Kohlberg, D. (1988). Business Ethics: Pace Provides Lesson from Real Life. *Management Review. 77*(8), 54-55.

Kohlberg, L. (1976). Moral Stages and Moralization. In T. Lickona (ed.), *Moral Development and Behavior:* (pp: 219-240). New York: Holt, Rinehavt, and Winston.

Kostova, T. (1997). Country Institutional Profiles: Concept and Measurement. In S.J. Havlovic (Ed.), *Best Paper Proceedings of the Academy of Management Annual Meeting* (pp. 180-184). NY: Academy of Management.

Krchmcyer, D. (2007). Teaching Business Ethics: A Critical Need. *Business Week B-Schools Viewpoint.* (online) Oct 25, 2007.

Kumar, K., Borycki, C., Nonis, S.A., & Yauger, C. (1991). The Strategic Decision Framework: Effects on Students' Business Ethics. *Journal of Education for Business. 67*, 74-79.

Lachman, R., & Aranya, N. (1986). Evaluation of Alternative Models of Commitments and Job Attitudes of Professionals. *Journal of Occupational Behaviors. 7*, 227-243.

Lamsa, A., Vehkapera, M., Puttonen, T., & Pesonen, H. (2007). Effect of Business Education on Women and Men Students' Attitude on Corporate Responsibility in Society. *Journal of Business Ethics. 82*, 45-58.

Lan, G., Gowing, M., McMahon, S., Rieger, F., & King, N. (2008). A Study of the Relationship between Personal Values and Moral Reasoning of Undergraduate Business Students. *Journal of Business Ethics. 78*(1-2), 121-139.

Lan, G., Gowing, M., Rieger, F., McMahon, S., & King, N. (2010). Values, Value Types and Moral Reasoning of MBA Students. *Business Ethics. 19*(2), 183.

Lane, M.S., & Schaupp, D. (1989). Ethics in Education: A Comparative Study. *Journal of Business Ethics. 8*(12), 943-949.

Lau, C.L.L. (2010). A Step Forward: Ethics Education Matters! *Journal of Business Ethics. 92*, 565-584.

Lere, J.C. (2003). The Impact of Codes of Ethics on Decision Making: Some Insights from Information Economics. *Journal of Business Ethics. 48*(4), 365-379.

Lin, C.Y. (1999). A Comparison of Perceptions about Business Ethics in Four Countries. *The Journal of Psychology. 133*(6), 641-655.

Liyanarachchi, G., & Newdick, C. (2009). The Impact of Moral Reasoning and Retaliation on Whistle-Blowing: New Zealand Evidence. *Journal of Business Ethics. 89*(1), 37-57.

Loo, R. (1996). Utility and Construct Validity of an Ethical Dilemmas Scale in Management Education. *Journal of Business Ethics. 15,* 551-557.

Loo, R. (2001). Encouraging Classroom Discussion of Ethical Dilemmas in Research Management: Three Vignettes. *Teaching Business Ethics. 5*, 195-212.

Loo, R. (2002). Tackling Ethical Dilemmas in Project Management using Vignettes. *International Journal of Project Management. 20*, 489-495.

Loo, R. (2003). Are Women More Ethical than Men? Findings from Three Independent Studies. *Women in Management Review. 18*(3/4), 169-181.

Lord, A.T., & DeZoort, F.T. (2001). The Impact of Commitment and Moral Reasoning on Auditors' Response to Social Influence Pressure. *Accounting, Organizations and Society. 26*, 215-235.

Low, M., Davey, H., & Hooper, K. (2008). Accounting Scandals, Ethical Dilemmas and Education Challenges. *Critical Perspectives on Accounting. 19*(2), 222-254.

Luthar, H. K., DiBattista, R.A., & Gautschi, T. (1997). Perception of What the Ethical Climate is and What It Should be: The Role of Gender, Academic Status, and Ethical Education. *Journal of Business Ethics. 16*(2), 205-217.

Martin, T.R. (1982). Do Courses in Ethics Improve the Ethical Judgement of Students? *Business and Society. 20*(2), 17-26.

Mason, E.S., & Mudrack, P.E. (1996). Gender and Ethical Orientation: A Test of Gender and Occupational Socialization Theories. *Journal of Business Ethics. 15*(6), 599-605.

Mayhew, B.W., & Murphy, P.R. (2008). The Impact of Ethics Education on Reporting Behavior. *Journal of Business Ethics. 86*, 397-416.

McCabe, A.C., Ingram, R., & Dato-on, M.C. (2006). The Business Ethics and Gender. *Journal of Business Ethics*. 64, 101-116.

McCabe, D.L., Dukerich, J.M., & Dutton, J.E. (1991). Context, Values and Moral Dilemmas: Comparing the Choices of Business and Law School Students. *Journal of Business Ethics. 10*(12), 951-960.

McCarthy, I. (1997). Professional Ethics Code Conflict Situations: Ethicsl and Value Orientation of Collegiate Accounting Students. *Journal of Business Ethics. 16*(12/13), 1467-1473.

McDonald, G. (2000). Cross-Cultural Methodological Issues in Ethical Research. *Journal of Business Ethics. 27*(2), 89-104.

McDonald, G.M. (2004). A Case Example: Integrating Ethics into Academic Business Curriculum. *Journal of Business Ethics. 54*(4), 371-385.

McDonald, G.M., & Donleavy, G.D. (1995). Objections to the Teaching of Business Ethics. *Journal of Business Ethics. 14*, 839-853.

McDonald, G.M., & Kan, P.C. (1997). Ethical Perception of Expatriate and Local Managers in Hong Kong. *Journal of Business Ethics. 16*(15), 1605-1623.

McPhail, K. (2001). The Other Objective of Ethics Education: Re-Humanising the Accounting Profession – A Study of Ethics Education in Law, Engineering, Medicine and Accountancy. *Journal of Business Ethics. 34*, 279-298.

McPhail, K., & Walters, D. (2009). *Accounting and Business Ethics: An Introduction.* NY: Routledge.

Mele, D. (2005). Ethical Education in Accounting: Integrating Rules, Values and Virtues. *Journal of Business Ethics. 57*(1), 97-109.

Mehta, S.C., & Kau, A.K. (1984). Marketing Executives Perceptions of Unethical Practices: An Empirical Investigation of Singapore Managers. *Singapore Management Review. 6*(2), 25-35.

Myyra, L., & Helkama, K. (2002). The Role of Value Priorities and Professional Ethics Training in Moral Sensitivity. *Journal of Moral Education. 31*(1), 35-50.

Norusis, M. J. (2008). *SPSS 16.0 Guide to Data Analysis.* NJ: Prentice Hall.

O'Leary, C., & Radich, R. (2001). An Analysis of Australian Final Year Accountancy Students' Ethical Attitudes. *Teaching Business Ethics. 5*(3), 235-250.

Peterson, M.F., & Smith, P.B. (1997). Does National Culture or Ambient Temperature Explain Cross-National Differences in Role Stress? No Sweat! *Academy of Management Journal. 40*(4), 930-946.

Ponemon, L.A. (1993). Can Ethics be taught in Accounting. *Journal of Accounting Education. 11*(2), 185-209.

Ralston, D.A., Egri, C.P., Stewart, S., Terpstra, R.N., & Yu, K.C. (1999). Doing Business in the 21st Century with the New Generation of Chinese Managers: A Study of Generational Shifts in Work Values in China. *Journal of International Business Studies. 30*(2), 415-427.

Rashid, Z.A., & Ho, J.A. (2003). Perceptions of Business Ethics in a Multicultural Community: The Case of Malaysia. *Journal of Business Ethics. 43*, 75-87.

Redfern, K., & Crawford, J. (2004). An Empirical Investigation of the Influence of Modernization on the Moral Judgements of Managers in the People's Republic of China. *Cross Cultural Management. 11*(1), 48-61.

Redfern, K., & Crawford, J. (2010). Regional Differences in Business Ethics in the People's Republic of China: A Multi-dimensional Approach to the Effects of Modernisation. *Asia Pacific Journal of Management. 27*(2), 215-235.

Rest, J. (1979). *Development in Judging Moral Issues.* Minneapolis: University of Minnesota Press.

Rest, J. (1986). *Moral Development: Advances in Research and Theory.* New York: Praeger.

Rest, J.R., & Narvaez, D. (1994). *Moral Development in the Professions: Psychology and Applied Ethics.* Lawrence Erlbaum Associations, Publishers. Hillsdale, New Jersey.

Ritter, B.A. (2006). Can Business Ethics be Trained? A Study of the Ethical Decision-making Process in Business Students. *Journal of Business Ethics. 68*(2), 153-164.

Rosenthal, D.A., & Feldman, S.S. (1992). The Nature and Stability of Ethnic Identity in Chinese Youth: Effects of Length of Residence in Two Cultural Contexts. *Journal of Cross-Cultural Psychology. 23*(2), 214-227.

Rossouw, G. J. (2002). Three Approaches to Teaching Business Ethics. *Teaching Business Ethics. 6*(4), 411-433.

Sarwono, S.S., & Armstrong, R.W. (2001). Microcultural Differences and Perceived Ethical Problems: An International Business Perspective. *Journal of Business Ethics. 30*(1), 41-56.

Schminke, M., & Ambrose, M. (1997). Asymmetric Perceptions of Ethical Frameworks of Men and Women in Business and Non-Business Settings. *Journal of Business Ethics. 16*, 719-729.

Shafer, W.E., Fukukawa, K., & Lee, G.M. (2007). Values and the Perceived Importance of Ethics and Social Responsibility: The U.S. versus China. *Journal of Business Ethics. 70*, 265-284.

Shaub, M. (1994). An Analysis of the Association of Traditional Demographic Variables with the Moral Reasoning of Auditing Students and Auditors. *Journal of Accounting Education. 12*(1), 1-26.

Shaub, M.K., Finn, D.N., & Munter, P. (1993). The Effects of Auditor's Ethical Orientation on Commitment and Ethical Sensitivity. *Behavioural Research in Accounting. 5*, 145-169.

Shenkar, O., & Ronen, S. (1987). Structure and Importance of Work Goals among Managers in the People's Republic of China. *Academy of Management Journal. 30*(3), 564-576.

Shenkar, O., & von Gilnow, M.A. (1994). Paradoxes of Organizational Theory and Research: Using the Case of China to Illustrate National Contingency. *Management Science. 40*(1), 56-71.

Sidani, Y., Zbib, I., Rawwas, M., & Moussawer, T. (2009). Gender, Age, and Ethical Sensitivity: The Case of Lebanese Workers. *Gender in Management. 24*(3), 211-228.

Sikula, A. Sr & Costa, A.D. (1994). Are Women more Ethical than Men? *Journal of Business Ethics. 13*(11), 859-871.

Sims, R.R. (2002). Business Ethics Teaching For Effective Learning. *Teaching Business Ethics. 6*(4), 393-410.

Singhapakdi, A., Kraft, K.L., Vitell, S.J., & Rallapalli, K.C. (1995).The Perceived Importance of Ethics and Social Responsibility on Organizational Effectiveness: A Survey of Marketers. *Journal of the Academy of Marketing Science. 23*, 49-56.

Smith, L.M. (2008). *Luca Pacioli: The Father of Accounting.* Texas: A&M University

Steward, M.D., Morgan, F.N., Crosby, L.A., & Kumar, A. (2010). Exploring Cross-National Differences in Organizational Buyers' Normative Expectations of Supplier Performance. *Journal of International Marketing. 18*(1), 23-40.

Stimpson, D., Jensen, L., & Neff, W. (1992). Cross-cultural Gender Differences in Preference for a Caring Morality. *Journal of Social Psychology.132*(3), 317-322.

Tan, H.H. & Chee, D. (2005). Understanding Interpersonal Trust in a Confucian-Influenced Society: An Exploratory Study. *International Journal of Cross Cultural Management: CCM. 5*(2), 197-212.

Tan, J. (2002). Culture, Nation, and Entrepreneurial Strategic Orientations: Implications for an Emerging Economy. *Entrepreneurship: Theory and Practice. 26*(4), 95-111.

Tan, J., & Chow, I.H. (2009). Isolating Cultural and National Influence on Value and Ethics: A Test of Competing Hypotheses. *Journal of Business Ethics. 88*, 197-210.

Thompson, K.R. (2006). A Conversation with Steven Kerr: A Rational Approach to Understanding and Teaching Ethics. *Journal of Leadership & Organizational Studies. 13*(2), 61-74.

Thorne, L. (1998). The Role of Virtue in Auditors' Ethical Decision Making: An Integration of Congnitive-Developmental and Virtue-Ethics Perspectives. *Research on Accounting Ethics. 4*, 291-308.

Thorne, L. (2000). The Development of Two Measures to Assess Accountants' prescriptive and Deliberative Moral Reasoning. Behavioral Research in Accounting. *12*, 139-169.

Thurow, L. (1987). Ethics Doesn't Start in Business Schools. *New York Times.* 14 June, p 25.

Tsalikis, J., & Ortiz-Buonafina, M. (1990). Ethical Beliefs' Differences of Males and Females. *Journal of Business Ethics. 9*(6), 509-517.

Tsui, J. (1996). Auditors' Ethical Reasoning: Some Audit Conflict and Cross Cultural Evidence. *International Journal of Accounting. 31*(1), 121-133.

Tsui, J., & Windsor, C. (2001). Some Cross-Cultural Evidence on Ethical Reasoning. *Journal of Business Ethics. 31*(2), 143-150.

Tung, R.L. (2008). The Cross-Cultural Research Imperative: The Need to Balance Cross-national and Intra-national Diversity. *Journal of International Business Studies. 39*(1), 41-46.

Tung, R.L., & Baumann, C. (2009). Comparing the Attitudes toward Money, Material Possessions and Savings of Overseas Chinese vis-à-vis Chinese in China: Convergence, Divergence or Cross-vergence, vis-à-vis 'one size fits all' Human Resource Management Policies and Practices. *The International Journal of Human Resource Management, 20*(11), 2382

Valentine, S., Godkin, L., Page, K., & Rittenburg, T. (2009). Gender and Ethics. *Gender in Management. 24*(2), 112-130.

Veiga, J.F. (2004). Special Topic: Ethical Behavior in Management. *Academy of Management Executive. 18*(2), 37-39.

Velayutham, S. (2003). The Accounting Professions' Code of Ethics: Is It a Code of Ethics or a Code of Quality Assurance? *Critical Perspectives on Accounting. 14*(4), 483-503.

Weber, J. (1990). Measuring the Impact of Teaching Ethics to Future Managers: A Review, Assessment, and Recommendations. *Journal of Business Ethics. 9,* 183-190.

Weber, J., & Glyptis, S.M. (2000). Measuring the Impact of a Business Ethics Course and Community Service Experience on Student's Value and Opinions. *Teaching Business Ethics. 4*(4), 341-358.

Weiss, C.S. (1981). The Development of Professional Role Commitment among Graduate Students. *Human Relations. 34*(1), 13-19.

Welton, R.E., LaGrone, M., & Davis, J.R. (1994). Promoting the Moral Development of Accounting Graduate Students: An Instructional Design and Assessment. *Accounting Education. 3*(1), 35-50.

Williams, J., & Elson, R. J. (2009). Improving Ethical Education in the Accounting Program: A Conceptual Course. *Allied Academies International Conference, Academy of Educational Leadership, Proceeding. 14*(1), 50-54.

Wu, C. (2003). A Study of the Adjustment of Ethical Recognition and Ethical Decision-making of Managers-to-be across the Taiwan Strait before and after Receiving a Business Ethics Education. *Journal of Business Ethics. 45*(4), 291-307.

Yetmar, S.A., & Eastman, K.K. (2000). Tax Practitioners' Ethical Sensitivity: A Model and Empirical Examination. *Journal of Business Ethics. 26,* 271-288.

Appendices

Appendix A   Summary of P-scores from Prior Studies

	Instrument Used	**Group Studied**	**P-Score**
Fleming et al. (2009)	Thorne's (2000) AEDI	Chinese final year undergraduate accounting students	27.98
		U.S. final year undergraduate accounting students	34.37
Ge & Thomas (2007)	Thorne's (2000) AEDI	Chinese fourth year undergraduate accounting students	21.8359
		Canadian fourth year undergraduate accounting students	31.9718
Liyanarachchi and Newdick (2009)	Welton et al. (1994) instrument	New Zealand undergraduate accounting students enrolled in an auditing course	34.28

Appendix B   Copy of Research Questionnaire

Lincoln University

Division: Faculty of Commerce

Date:
Dear Participant,

A Comparison of the Ethical Reasoning Ability of New Zealand and Chinese Accounting Students

My name is Kun Peng and I am conducting a survey as part of my MCom thesis at Lincoln University, New Zealand. I am researching how accounting students respond to ethical dilemmas.

You participation in this survey is **voluntary**. The answers you provide to this survey will remain **anonymous**. Only my supervisors and I have access to the completed surveys. The data will be reported in an aggregate form so it is not possible to associate the answers you provided with yourself personally.

It will take **approximately 15 minutes** to complete the survey. There will not be any further questions later or follow-up queries. Your participation is important to this research and your response will be greatly appreciated. If you are willing to participate in this research, please complete this survey and put into the box placed outside the classroom.

If you wish to receive a summary of the results of this study, or have any further questions, please contact me at kun.peng2@lincolnuni.ac.nz. Otherwise, you can contact my Supervisor, Gregory Liyanarachchi (greg.liyanarachchi@lincoln.ac.nz) or my Associate Supervisor Tracy-Anne DeSilva (tracy-anne.desilva@lincoln.ac.nz).

The project has been reviewed and approved by Lincoln University Human Ethics Committee.
Completion of and returning this form is deemed to be consent to participating in this survey.

You have the right to withdraw from the study if you feel uncomfortable in answering all questions. In this case simply do not submit your partially completed survey.

Thank you for participating in this survey. Your cooperation is very much appreciated!

Yours sincerely
Kun Peng   **Supervisor:** Gregory Liyanarachchi
c/o Faculty of Commerce   **Associate Supervisor:** Tracy-Anne DeSilva
Lincoln University
PO Box 84, Lincoln 7647
Canterbury, New Zealand

This questionnaire contains 4 sections; please do not consult others when completing this questionnaire. There are no right or wrong answers and your views are just as important and relevant as anyone else!

Section 1: Case Scenarios

For each of the following three scenarios:

1. There are no "right" answers, as different people have different opinions about the importance of particular factors in decision making.
2. Please carefully read the scenario.
3. Please tick in the spaces provided, to answer the question posted by the scenario.
4. Indicate the importance of each item numbered 1-12 to your decision in the scenario by placing a tick mark in the provided spaces. For example, if you believe statement 1 is of prime importance to your decision tick 'great'. If statement 1 would not influence your decision tick 'no'. For each scenario, you may have multiple items which are of 'great', 'much', 'some', 'little' or 'no' importance to your decision.
5. Indicate the four most important items and their relative order of importance to your decision by placing their item numbers in the blanks labelled 'most important', 'second most important', 'third most important' and 'fourth most important'.

Scenario 1: The opinion

Susan Bonnet, CA, served as the partner-in-charge of the consulting team that installed the computerised accounting system for Midwest Sales, a publicly held company. Midwest has been a client of her national CA firm for 15 years. During this period, Midwest has experienced rapid growth, and is now planning a $15 million stock offering.

Keith Pasket, an audit partner, is nearing completion of the procedures in the audit program for Midwest. Although the audit has found no discrepancies in the account data and financial reports, several critical weaknesses were noted in the internal control structure of the computerised accounting system. Mr Pasket does not want to give an unqualified opinion unless the audit scope is expanded.

Ms Bonnet, who has devoted many hours to the development of the computerised accounting system, is very defensive of the system and assures Mr Pasket that everything is under control. The client is in agreement with Ms Bonnet and is unwilling to pay for an expanded audit.

(a) Should Pasket give an unqualified opinion? (Please tick the appropriate space).
Should give ___   Cannot decide ___   Should not give ___

(b) Please indicate the importance of each of following considerations in making your decision:

		Great	Much	Some	Little	No
1	Any problems are the fault of the CA firm and the financial report of Midwest should not be jeopardised					
2	Whether expansion of scope is the only alternative under GAAP					
3	Midwest's goals should be placed ahead of differences concerning the type of audit opinion.					
4	Whether Pasket is biased because the work was completed by Ms Bonnet.					
5	Whether Pasket knows about the anticipated stock offering.					
6	Whether Midwest will be treated the same as other clients in similar situations.					
7	Whether internal control concerns can be solved solely with a management letter.					
8	Whether rendering an unqualified opinion will conflict with Pasket's personal sense of integrity.					
9	Whether consulting revenues are dominant within the CA firm.					
10	How would the stockholders' interest be best served?					
11	Whether performing critical accounting activities on the computer versus manually violates GAAP.					
12	Whether the CA firm's obligation to the client conflicts with their obligation to the shareholders.					

(c) From the list of considerations above, select the four most important in making your decision:
Most important # ____   Third most important # ____
Second most important # ____   Fourth most important # ____

Scenario 2: Bankruptcy

Fun Bicycle, a recently formed company, has approached Atop Metals, a company with $8 million in sales, for a line of credit for the purpose of the supply of tube steel for the manufacture of bicycles. The three owners of Fun Bicycles were the former owners of Kiddie Tricycle, a company that declared bankruptcy three years ago. Atop Metals had to write off $280,000 of bad debts because of Kiddie Tricycle's bankruptcy. The three owners of Fun Bicycles have experiences and backgrounds in engineering, marketing and accounting. The new company has sufficient expertise to manufacture and sell bicycles. They expect first year tube steel needs to be approximately $800,000, and therefore have asked for line of credit totalling $400,000.

*(a) **Should Atop Metals extend credit to Fun Bicycles? (Please tick the appropriate space).***

Should extend ___   Cannot decide ___   Should not extend ___

*(b) **Please indicate the importance of each of following considerations in making your decision:***

		Great	Much	Some	Little	No
1	You should do favours for former customers, even if they previously had economic difficulties.					
2	Whether Fun Bicycles' risk of default is assessed as being within acceptable lending limits.					
3	Whether Atop Metals gets a tax break when it writes off bad debts.					
4	Whether the owners of Atop Metals and Fun Bicycles are related.					
5	Society should protect companies from bankruptcy if their owners and managers are trying hard to succeed.					
6	Whether Fun Bicycles is treated the same as other credit customers.					
7	Whether the law forbids discrimination in credit decisions of individuals who have previously declared bankruptcy.					
8	Whether Atop Metals is extending credit for selfish reasons (to make a profit) or is attempting to help a new business get started.					
9	Whether Fun Bicycles' owners were guilty of fraud in the bankruptcy of Kiddie Tricycle.					
10	Whether extending this credit violates company policy of extending credit to officers of bankrupt companies.					
11	Whether other tube steel supplies have already rejected Fun Bicycles' request for credit.					
12	Whether extending credit to Fun Bicycles will allow them to create needed jobs in the community.					

*(c) **From the list of considerations above, select the four most important in making your decision:***

Most important # ____   Third most important # ____

Second most important # ____   Fourth most important # ____

Scenario 3: Reimbursement

Joe, an employee, attends an out-of-town convention. Only the travel and accommodation expenses of employees are to be reimbursed, upon the approval of documentation submitted to Terry. Joe's spouse accompanied him and they stayed an additional night resulting in substantial reductions in air fares. Joe has submitted the total travel and accommodation bills without reduction for spouse-related expenses.

(a) Should Terry approve the reimbursement? (Please tick the appropriate space).
    Should approve ___   Cannot decide ___   Should not approve ___

(b) Please indicate the importance of each of following considerations in making your decision:

		Great	Much	Some	Little	No
1	Whether Terry knows that Joe is doing an excellent job.					
2	Whether company policy is going to be followed.					
3	Whether future reviews are likely to question Terry's approval of this item.					
4	Whether Terry's certification code of ethics gives guidance on this item.					
5	How would the stockholders' interests be best served?					
6	Would it be fair to other employees who choose to travel without their spouses?					
7	Whether this type of request is approved in other units of the firm.					
8	Whether the inconvenience of out-of-town travel allows one to compensate via special perks.					
9	Whether Joe is a close friend of Terry's.					
10	Whether an in-house training session stressed this issue as one to be given careful review.					
11	Whether this decision creates conflicts with Terry's concept of honesty.					
12	Whether society is proactive in establishing codes of ethics.					

(c) From the list of considerations above, select the four most important in making your decision:
Most important # ____   Third most important # ____
Second most important # ____   Fourth most important # ____

Section 2: Your Opinions
(Please circle the answer in this section)

Please indicate whether you agree or disagree with each of the following statements.

1: People should be willing to achieve results whilst maintaining high ethical standards.
Strongly Agree   *Strongly Disagree*
    1   2   3   4   5   6   7

2: People should be willing to sacrifice personal interest when attempts to achieve them significantly damage others' interests.
Strongly Agree   *Strongly Disagree*
    1   2   3   4   5   6   7

3: Businesses should be willing to make profits only when it is ethical to make profits.
Strongly Agree   *Strongly Disagree*
    1   2   3   4   5   6   7

4: People who maintain high ethical standards are well respected in society.
Strongly Agree   *Strongly Disagree*
    1   2   3   4   5   6   7

5: Businesses that maintain high ethical standards are well respected in society.
Strongly Agree   *Strongly Disagree*
    1   2   3   4   5   6   7

6: Students who maintain high ethical standards are well respected by their peers.
Strongly Agree   *Strongly Disagree*
    1   2   3   4   5   6   7

7: People who maintain high ethical standards are well respected by their families and relatives.
Strongly Agree   *Strongly Disagree*
    1   2   3   4   5   6   7

Section 3: University Education
(Please circle the answer in this section)

1: Have you studied any special course or courses on ethics?
    Yes   *No*
    If yes, please state how many   _____

2: Have you studied any accounting course or courses that contained discussions of ethics?
    Yes   *No*
    If yes, please state how many   _____

3: As part of your accounting education, how much discussions have you had on the importance of <u>ethics in business</u>?
Very Much   Some   *Not at all*
    1   2   3   4   5   6   7

4: As part of your accounting education, how much discussions have you had on the importance of <u>ethics in accounting</u>?
Very Much   Some   *Not at all*
    1   2   3   4   5   6   7

5: As part of your accounting education, how much discussions have you had on major business scandals?

Very Much   *Some*   *Not at all*

     1   2   3   4   5   6   7

6: In your accounting courses, do teachers emphasise much on the importance of ethics?

Very Much   *Some*   *Not at all*

     1   2   3   4   5   6   7

7: In your accounting courses, do teachers emphasise much on the importance of acting in good faith?

Very Much   *Some*   *Not at all*

     1   2   3   4   5   6   7

8: In your accounting courses, do teachers emphasise much on the importance of operating in the public interest?

Very Much   *Some*   *Not at all*

     1   2   3   4   5   6   7

<u>Section 4: About You</u>
(Please circle the answer in this section)

Gender:
    Male   Female

Nationality:
    New Zealand   China   Other

The place where you received most of your primary school education:
    New Zealand   China   Other

The place where you received most of your secondary school education:
    New Zealand   China   Other

The place where you received most of your university education:
    New Zealand   China   Other

End of questionnaire
Thank you for your cooperation!

Appendix C   Scoring Method for Ethical Reasoning Instrument

ADIT SCORING AND PROCESSING

3-Scenario Version ADIT
Scenario Questions Linked to Kohlberg's Stages

Statement Number	Bankruptcy Scenario	the Opinion Scenario	Reimbursement Scenario
1.	3	3	3
2.	4	4	4
3.	N	3	2
4.	3	N	4
5.	5	3	5
6.	5	5	5
7.	4	4	4
8.	5	6	2
9. `	3	2	3
10.	4	5	4
11.	2	N	6
12.	5	5	N

(where numerals = Kohlberg's Stage, and N = nonsense statement)

Computing Stage Scores and P-Scores

Stage scores and P--Scores are computed from the subject's indication of the top 4 statements that influence his/her decision. We based our design on James Rest's DIT and employed the same scoring techniques and consistency checks. That is:

Step 1: Computing P-Score:

You evaluate only the statements marked Most Important, Second Most Important, Third Most Important, and Fourth Most Important. In the scoring process, statement numbers that relate to Kohlberg's Stages 1-4 are not awarded points.

A.   For each statement number that relates to Kohlberg's Stage 5 or 6 appearing in the *Most Important* category, score 4 points.

B.   For each statement number that relates to Kohlberg's Stage 5 or 6 appearing in the *Second Most Important* category, score 3 points.

C. For each statement number that relates to Kohlberg's Stage 5 or 6 appearing in the *Third Most Important* category, score 2 points.

D. For each statement number that relates to Kohlberg's Stage 5 or 6 appearing in the *Fourth Most Important* category, score 1 point.

E. Sum the points awarded across the three scenarios and divide by .30. This converts the sum to a percentage which represents the subject's propensity to consider Kohlberg's Stages 5 and 6 in their decision making.

Step 2: Consistency Checks

You evaluate only the statements marked *Most Important*, *Second Most Important,* and *Third Most Important* relative to each other.

Look for inconsistency where the item indicated as Most Important to the decision was not ranked as having as great of importance to the decision in the ranking of items 1-12 (Great - Much - Some - Little - No importance), as the item ranked Second Most Important . Repeat the process for the Second Most Important Item comparing it with the Third Most Important Item. If inconsistencies occur on more than one scenario, do not use the questionnaire as it is an indication that the subject did not understand the task or was not paying attention to the task as he/she completed the questionnaire.

Look back at "Bankruptcy" in the example provided above. The subject indicated that statement 9 was the most important to the decision. However, in ranking statements 1-12, the subject indicated that 9 was of much importance, while 6 was rated as being of great importance to the decision that had to be made. If the subject was consistent in his/her thinking and marking of the questionnaire, he/she would have indicated that 6 was the most important and 9 was second most important. Comparing the Second Most Important and Third Most Important categories produces no additional errors as using either statement 7 10 or 11 would be logical all other statement numbers were ranked of lower importance to the decision at hand.

Step 3: Nonsense Error Checks:

You eliminate subjects when it appears they were not paying attention to the experimental task.

Observe the statement numbers recorded as *Most Important*, *Second Most Important*, *Third Most Important*, and *Forth Most Important*. If the subject has placed in these rankings an item which equates to nonsense, score that item 4 points (most), 3 points (second most), 2 points (third most), or 1 point (fourth most). Do this across all three scenarios summing the total

points assigned to nonsense statements and dividing the total by .30. If the resulting percentage is greater than or equal to twenty percent, you should eliminate that questionnaire. An alternative is to run your statistical tests with and without these questionnaires. If the outcome of the statistical test is not changed you may leave the questionnaires in your study.

Appendix D   Analysis of Vaiance Results

Table D-1: ANOVA for Nationality:

Descriptive Statistics					
Dependent Variable:P-score					
EEE	Gender	Nationality	Mean	Std. Deviation	N
Low	Females	CIC	26.4286	14.28483	28
		NZL	41.0256	11.73666	13
		COS	36.6667	8.16497	4
		Total	31.5556	14.59210	45
	Males	CIC	29.1667	12.13352	20
		NZL	37.1429	9.85858	14
		COS	30.0000	18.85618	2
		Total	32.3148	11.89423	36
	Total	CIC	27.5694	13.36414	48
		NZL	39.0123	10.77409	27
		COS	34.4444	11.08887	6
		Total	31.8930	13.38467	81
high	Females	CIC	33.8519	13.06463	45
		NZL	36.3889	18.33792	12
		COS	32.5000	6.83500	12
		Total	34.0580	13.18384	69
	Males	CIC	28.7037	15.00061	18
		NZL	34.5833	9.41756	8
		COS	33.3333	7.81736	5
		Total	30.9677	12.80028	31
	Total	CIC	32.3810	13.72318	63
		NZL	35.6667	15.10586	20
		COS	32.7451	6.89558	17
		Total	33.1000	13.08056	100
Total	Females	CIC	31.0046	13.92977	73
		NZL	38.8000	15.11928	25
		COS	33.5417	7.14596	16
		Total	33.0702	13.74830	114
	Males	CIC	28.9474	13.38067	38
		NZL	36.2121	9.55604	22
		COS	32.3810	10.13141	7
		Total	31.6915	12.24570	67
	Total	CIC	30.3003	13.71830	111
		NZL	37.5887	12.75375	47
		COS	33.1884	7.94414	23
		Total	32.5599	13.19431	181

Tests of Between-Subjects Effects

Dependent Variable:P-score

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	3143.699	11	285.791	1.713	.074
Intercept	102885.218	1	102885.218	616.747	.000
EEE	.736	1	.736	.004	.947
Gender	124.938	1	124.938	.749	.388
Nationality	1864.793	2	932.397	5.589	.004
EEE * Gender	1.841	1	1.841	.011	.916
EEE * Nationality	395.035	2	197.517	1.184	.309
Gender * Nationality	25.660	2	12.830	.077	.926
EEE * Gender * Nationality	321.950	2	160.975	.965	.383
Error	28192.458	169	166.819		
Total	223222.222	181			
Corrected Total	31336.157	180			

R Squared = 0.100 (Adjusted R Squared = 0.042)

Post Hoc Tests for Nationality

P-score
Bonferroni

(I) Nationality	(J) Nationality	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
CIC	NZL	-7.2884	2.24771	.004	-12.7234	-1.8533
	COS	-2.8881	2.95904	.991	-10.0432	4.2670
NZL	CIC	7.2884	2.24771	.004	1.8533	12.7234
	COS	4.4002	3.28669	.547	-3.5471	12.3476
COS	CIC	2.8881	2.95904	.991	-4.2670	10.0432
	NZL	-4.4002	3.28669	.547	-12.3476	3.5471

Table D-2: Mann-Whitney U Tests for PIE

CIC Vs NZL

Ranks				
	Nationality	N	Mean Rank	Sum of Ranks
PIE	CIC	111	83.73	9294.50
	NZL	47	69.50	3266.50
	Total	158		

Test Statisticsa	
	PIE
Mann-Whitney U	2138.500
Wilcoxon W	3266.500
Z	-1.792
Asymp. Sig. (2-tailed)	.073

Females Vs Males

Ranks				
	Gender	N	Mean Rank	Sum of Ranks
PIE	Females	114	93.93	10708.00
	Males	67	86.01	5763.00
	Total	181		

Test Statisticsa	
	PIE
Mann-Whitney U	3485.000
Wilcoxon W	5763.000
Z	-.984
Asymp. Sig. (2-tailed)	.325

CIC Vs COS

Ranks				
	Nationality	N	Mean Rank	Sum of Ranks
PIE	CIC	111	68.63	7618.00
	COS	23	62.04	1427.00
	Total	134		

Test Statisticsa	
	PIE
Mann-Whitney U	1151.000
Wilcoxon W	1427.000
Z	-.742
Asymp. Sig. (2-tailed)	.458

COS Vs NZL

Ranks				
	Nationality	N	Mean Rank	Sum of Ranks
PIE	NZL	47	33.68	1583.00
	COS	23	39.22	902.00
	Total	70		

Test Statisticsa	
	PIE
Mann-Whitney U	455.000
Wilcoxon W	1583.000
Z	-1.075
Asymp. Sig. (2-tailed)	.282

Low EEE Vs High EEE

Ranks				
	UE	N	Mean Rank	Sum of Ranks
PIE	Low	81	76.56	6201.00
	high	100	102.70	10270.00
	Total	181		

Test Statisticsa	
	PIE
Mann-Whitney U	2880.000
Wilcoxon W	6201.000
Z	-3.347
Asymp. Sig. (2-tailed)	.001

Table D-3: Correlation

Correlations		EEE	Uni	Nationality	Gender	PIE
P-score	Pearson Correlation	.011	.294	.157	-.051	.005
	Sig. (2-tailed)	.887	.000	.035	.499	.942
	N	181	181	181	181	181
PIE	Pearson Correlation	.389	-.112	-.069	-.139	
	Sig. (2-tailed)	.000	.134	.354	.061	
	N	181	181	181	181	
Gender	Pearson Correlation	-.126	.002	.025		
	Sig. (2-tailed)	.091	.981	.735		
	N	181	181	181		
Nationality	Pearson Correlation	.016	.736			
	Sig. (2-tailed)	.829	.000			
	N	181	181			
University	Pearson Correlation	-.101				
	Sig. (2-tailed)	.177				
	N	181				

Appendix E Analysis of Vaiance After Sample Sizes Reduction

Sample Sizes Reduction Process: The number of COS (23) is the smallest groups compared to CIC and NZL. Using SPSS to randomly select 29 CIC from 111 returned CICs' questionnaires, and 23 NZL from 47 returned NZLs' questionnaires.

Table E-1:

Between-Subjects Factors		Value Label	N
Gender	1	females	45
	2	males	30
EEE	1	Low	32
	2	High	43
Nationality	1	CIC	29
	2	NZL	23
	3	COS	23

Tests of Normality	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
P-score	.100	75	.062	.989	75	.774
PIE	.115	75	.016	.943	75	.002

Levene's Test of Equality of Error Variancesa			
Dependent Variable:P-score			
F	df1	df2	Sig.
1.131	11	63	.353

Table E-2:

Tests of Between-Subjects Effects					
Dependent Variable:P-score					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1817.002	11	165.182	1.250	.274
Intercept	66646.713	1	66646.713	504.376	.000
Gender	13.042	1	13.042	.099	.754
EEE	.901	1	.901	.007	.934
Nationality	813.418	2	406.709	3.078	.053
Gender * EEE	.031	1	.031	.000	.988
Gender * Nationality	130.400	2	65.200	.493	.613
EEE * Nationality	318.684	2	159.342	1.206	.306
Gender * EEE * Nationality	300.624	2	150.312	1.138	.327
Error	8324.628	63	132.137		
Total	96388.889	75			
Corrected Total	10141.630	74			

R Squared = 0.179 (Adjusted R Squared = 0.036)

Post Hoc Multiple Comparisons						
P-score						
Bonferroni						
					95% Confidence Interval	
		Mean Difference	Std.		Lower	Upper
(I) Nationality	(J) Nationality	(I-J)	Error	Sig.	Bound	Bound
CIC	NZL	-8.5257	3.20960	.030	-16.4200	-.6315
	COS	-2.7286	3.20960	1.000	-10.6229	5.1656
NZL	CIC	8.5257	3.20960	.030	.6315	16.4200
	COS	5.7971	3.38972	.276	-2.5402	14.1344
COS	CIC	2.7286	3.20960	1.000	-5.1656	10.6229
	NZL	-5.7971	3.38972	.276	-14.1344	2.5402

Table E-3: Non-Parametric Tests for PIE (Kruskal-Wallis Test)

Ranks			
	Nationality	N	Mean Rank
PIE	CIC	29	40.05
	NZL	23	32.04
	COS	23	41.37
	Total	75	

Test Statistics	
	PIE
Chi-Square	2.541
df	2
Asymp. Sig.	.281

Appendix F   Test Results after COS were Removed

Table F-1

Levene's Test of Equality of Error Variancesa

Dependent Variable:P-score

F	df1	df2	Sig.
1.249	11	146	.260

Table F-2:

Tests of Between-Subjects Effects					
Dependent Variable:P-score					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	4784.306	11	434.937	2.525	.006
Intercept	131838.218	1	131838.218	765.251	.000
Gender	4.529	1	4.529	.026	.871
EEE	236.622	1	236.622	1.373	.243
University	3428.263	2	1714.132	9.950	.000
Gender * EEE	133.436	1	133.436	.775	.380
Gender * Univeristy	176.271	2	88.136	.512	.601
EEE * University	656.877	2	328.438	1.906	.152
Gender * EEE*University	302.227	2	151.113	.877	.418
Error	25153.036	146	172.281		
Total	196500.000	158			
Corrected Total	29937.342	157			

Multiple Comparisons						
P-score						
Bonferroni						
					95% Confidence Interval	
		Mean Difference	Std. Error	Sig.	Lower Bound	Upper Bound
First Class	Second Class	-6.5504*	2.49662	0.029	-12.5969	-0.5039
	NZ	-10.3570*	2.56624	0.000	-16.5721	-4.1419
Second Class	First Class	6.5504*	2.49662	0.029	0.5039	12.5969
	NZ	-3.8066	2.64171	0.455	-10.2045	2.5913
NZ	First Class	10.3570*	2.56624	0.000	4.1419	16.5721
	Second Class	3.8066	2.64171	0.455	-2.5913	10.2045

Based on observed means.

The error term is Mean Square(Error) =172.281

*. The mean difference is significant at the .05 level.

Table F-3:

Non Parametric Test for PIE (Kruskal-Wallis Test)

Ranks			
	University	N	Mean Rank
PIE	First Class	59	86.08
	Second Class	52	81.08
	NZ	47	69.50
	Total	158	

Test Statistics	
	PIE
Chi-Square	3.543
df	2
Asymp. Sig.	.170