

School of Accounting

**An Investigation of the Moral Intentions of Chinese Auditors:
Conflicts Associated with Maintaining Independence in Auditor–
client Relationship Situations**

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Doctor of Philosophy

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Declaration

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The research presented and reported in this thesis was conducted in accordance with the National Health and Medical Research Council National Statement on Ethical Conduct in Human Research (2007)—updated March 2014. The proposed research study received human research ethics approval from the Curtin University Human Research Ethics Committee (EC00262), Approval Number: **HRE2016-0225**.

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Table of Contents

Declaration	ii
Table of Contents	iii
List of Tables	viii
List of Figures	x
List of Abbreviations	xi
Abstract	xii
Acknowledgements	xiv
Chapter 1: Introduction	1
1.1 Background	1
1.2 Theoretical framework	3
1.3 Objectives and research questions of this thesis	4
1.4 Significance of this thesis	5
1.5 Organisation of this thesis	7
Chapter 2: Review of the TPB applications in business research	8
2.1 Introduction	8
2.2 The development of the TPB	10
2.2.1 The Theory of Planned Behaviour (TPB)	10
2.2.2 Evolution of the TPB	12
2.3 Literature review method	13
2.4 Results of the literature review and discussion	15
2.4.1 Results of the TPB's effectiveness	15
2.4.2 <i>Attitudes towards behaviour</i>	20
2.4.3 <i>Subjective norms</i>	24
2.4.4 <i>Perceived behavioural control</i>	26

2.4.5 <i>Intention</i>	29
2.4.6 Results of literature review on extending the TPB	35
2.4.7 Results of literature review on the research method and data collection issues	40
2.5 Conclusion of Chapter 2	47
Chapter 3: Review of the Kleinman and Palmon micro-level model	49
3.1 Introduction	49
3.2 Research method on literature review	51
3.3 Internal variables	53
3.3.1 Personality factors	56
3.3.2 Value	59
3.3.3 Motivation	60
3.3.4 Stage of life/career	61
3.3.5 Aspiration level	61
3.3.6 Conclusion of internal variables	62
3.4 The social variables	64
3.4.1 Intra-firm influences	66
3.4.2 Professional environment	67
3.4.3 Personal environment	67
3.4.4 Conclusion of social variables	68
3.5 Organisational control variable	69
3.5.1 Organisational selection	71
3.5.2 Organisational culture	72
3.5.3 Ethical climate	73
3.5.4 Organisational structure	73
3.5.5 Conclusion and future direction	74
3.6 Conclusion of Chapter 3	75

Chapter 4: Theoretical framework and hypotheses development	77
4.1 The conceptual framework of this thesis	77
4.1.1 TPB variables	78
4.1.2 The KP micro-level model variables	79
4.2 Hypotheses development	81
4.2.1 Hypotheses within the TPB model	81
4.2.2 Hypotheses of extension of the TPB to the KP micro-level model	84
4.3 Conclusion of Chapter 4	91
Chapter 5: Research methodology	93
5.1 Research method	93
5.1.1 Survey instrument design	93
5.1.2 Sample selection	95
5.1.3 Procedure of survey	95
5.2 Measures	96
5.2.1 <i>Ethical ideologies</i>	97
5.2.2 <i>Code of ethics</i>	99
5.2.3 Organisational ethical context	100
5.2.4 <i>Interpersonal relationships</i>	102
5.2.5 Variables in the TPB model	104
5.2.6 Demographic variables	106
5.3 Conclusion of Chapter 5	107
Chapter 6: Results	108
6.1 Descriptive results	110
6.1.1 Details of demographic information of respondents	110
6.1.2 Descriptive analysis of variables	113
6.2 Results of variables across demographic factors	114
6.2.1 Results of variables across <i>gender</i>	114

6.2.2 Results of variables across <i>age</i>	115
6.2.3 Results of variables across <i>education</i>	115
6.2.4 Results of variables across <i>experience</i>	116
6.2.5 Results of variables across <i>firms</i>	116
6.2.6 Results of variables across <i>region</i>	117
6.3 Hypotheses testing	117
6.3.1 The results of TPB model	118
6.3.2 Integrating variables with the TPB model	120
6.3.3 Endogeneity test within conceptual framework	123
6.4 Multi-group comparison based on the control variables	126
6.4.1 <i>Gender</i>	127
6.4.2 <i>Age</i>	129
6.4.3 <i>Education</i>	132
6.4.4 <i>Experience</i>	134
6.4.5 <i>Firms</i>	137
6.4.6 <i>Region</i>	139
6.5 Conclusion of Chapter 6	142
Chapter 7 Discussion and conclusion	146
7.1 Associations within the TPB model	147
7.1.1 The association between <i>attitudes towards behaviour</i> and <i>intention</i>	147
7.1.2 The association between <i>subjective norms</i> and <i>intention</i>	148
7.1.3 The association between <i>perceived behavioural control</i> and <i>intention</i>	149
7.1.4 Objective 1 summary	150
7.2 Decomposition of the TPB and KP micro-level model variables	150
7.2.1 The effect of <i>ethical ideologies</i> on <i>attitudes towards behaviour</i>	151
7.2.2 The effect of <i>code of ethics</i> on <i>attitudes towards behaviour</i> and <i>subjective norms</i>	152

7.2.3 The effect of <i>ethical climate</i> on <i>subjective norms</i>	152
7.2.4 The effect of <i>corporate ethical values</i> on <i>subjective norms</i>	153
7.2.5 The effect of <i>interpersonal relationships</i> on <i>subjective norms</i>	154
7.2.6 Objective 2 summary	155
7.3 The influence of demographic information on the Chinese auditors' decision-making process	155
7.3.1 <i>Gender</i>	156
7.3.2 <i>Age</i>	156
7.3.3 <i>Education</i>	157
7.3.4 <i>Experience</i>	158
7.3.5 <i>Firms</i>	159
7.3.6. <i>Region</i>	159
7.3.7 Objective 3 summary	160
7.4 Contributions summary	160
7.5 Limitations and future avenues	162
7.5.1 Limitations of this thesis	162
7.5.2 Suggestions for future research	163
References	165
Appendix	193
Appendix 1: Cover letter for survey (in English)	193
Appendix 2: Survey instrument (in English)	194
Appendix 3: Cover letter (in Chinese)	200
Appendix 4: Survey instrument (in Chinese)	201

List of Tables

Table 1: Publication of TPB-related papers	14
Table 2: The effectiveness of TPB model	15
Table 3: Variables identified as determinants for attitudes towards behaviour	20
Table 4: Variables identified as determinants for subjective norms	25
Table 5: Variables identified as determinants for perceived behavioural control	27
Table 6: Review of intention in prior studies	30
Table 7: New variables identified as determinants for intention	36
Table 8: Review of methodology issues in the application of the TPB model	40
Table 9: Group of studies reviewed	52
Table 10: Studies on the effects of internal variables	53
Table 11: Studies on the effects of social variables	65
Table 12: Studies on the effects of organisational control variables	70
Table 13: The TPB variables	79
Table 14: The variables decomposing attitudes towards behaviour	79
Table 15: The variables decomposing subjective norms	80
Table 16: Ethical climate types	88
Table 17: Results of the distribution of the responses	96
Table 18: Measurements of ethical ideologies	98
Table 19: Measurements of code of ethics	100
Table 20: Measurements of ethical climate	101
Table 21: Measurements of corporate ethical values	102
Table 22: Measurements of interpersonal relationships	103
Table 23: Measurements for the TPB variables	105
Table 24: Measurements for demographic variables	106
Table 25: Hypotheses within the structural model	108
Table 26: Background information of respondents	111
Table 27: Regrouping of participants	112
Table 28: Descriptive and t-test of variables	113
Table 29: T-test for variables across <i>gender</i>	114
Table 30: T-test for variables across <i>age</i>	115
Table 31: T-test for variables across <i>education</i>	115
Table 32: T-test for variables across <i>experience</i>	116

Table 33: T-test for variables across firms	117
Table 34: T-test for variables across <i>region</i>	117
Table 35: Results of exclusion restriction test for IDE, REL and INM	124
Table 36: Result of endogeneity test with the ATT	124
Table 37: Results of exclusion restriction test for IDE, REL and INM	125
Table 38: Test of endogeneity with the SN	126
Table 39: The results of multiple-group comparison for gender	128
Table 40: The results of multiple-group comparison for <i>age</i>	130
Table 41: The results of multiple-group comparison for <i>education</i>	133
Table 42: The results of multiple-group comparison for <i>experience</i>	135
Table 43: The results of multiple-group comparison for firms	138
Table 44: The results of multiple-group comparison for <i>region</i>	140
Table 45: Summary of findings through t-tests	143
Table 46: Summary of results of hypotheses tests	144
Table 47: Hypotheses for decomposing the TPB variables	151

List of Figures

Figure 1: Conceptual framework of this thesis	4
Figure 2: Theory of Planned Behaviour from Ajzen (1991)	11
Figure 3: Conceptual framework of the KP micro-level model	51
Figure 4: Hypotheses within the conceptual framework	78
Figure 5: Theoretical bases for ethical climate types	87
Figure 6: The results of the SEM analysis within the TPB model	119
Figure 7: The results of the SEM analysis for an integrated model	121

List of Abbreviations

CFA	Confirmatory Factor Analysis
IESBA	International Ethics Standards Board for Accountants
KP micro-level model	Kleinman and Palmon micro-level model
MGB	Model of Goal-directed Behaviour
PBC	Perceived Behavioural Control
SEM	Structural Equation Model
SN	Subjective Norms
TAM	Theory of Acceptance Model
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action

Abstract

This thesis investigates Chinese auditors' ethical intention and their decision-making process within the auditor-client relationship. This relationship is more complex in China than that in Western countries due to China's unique value system. This thesis employs the Theory of Planned Behaviour (TPB) and the Kleinman and Palmon (KP) micro-level model to explore the Chinese auditors' ethical decision-making process when in potential conflict with their clients.

Three specific objectives are proposed in this thesis:

- 1) To examine whether TPB can be applied to Chinese auditors when confronted with pressure from their clients.
- 2) To investigate the Chinese auditors' ethical decision-making process through decomposing the independent TPB variables within the KP micro-level model variables within an auditor-client context.
- 3) To compare the differences in ethical decision-making processes between Chinese auditor groups categorised on their demographic variables.

To achieve these specific objectives, this thesis constructs a conceptual framework based on the TPB model, which proposes that an individual's *intention* is affected by three determinants: *attitudes towards behaviour*, *subjective norms* and *perceived behavioural control*. The KP micro-level model concerns an auditor's intention to maintain independence within the auditor-client relationship and provides variables including *ethical ideologies* (including *relativism* and *idealism*), *code of ethics* (including *independence in mind* and *independence in appearance*), *interpersonal relationships* (including *favour-seeking guanxi* and *rent-seeking guanxi*), *ethical climate* and *corporate ethical values* (including *manager's unethical behaviour* and *rewards and punishments*).

Survey methodology is utilised to collect data in a series of Chinese cities across various regions. The data is analysed through several statistical methods, such as descriptive, t-test, the Structural Equation Model (SEM) and multi-group comparison.

The significant results in this thesis are presented as follows:

- 1) The TPB can be parsimoniously applied for predicting Chinese auditors' intention within the auditor-client context, though *subjective norms* is not significantly associated with *intention*.
- 2) The Chinese auditors' perceived *idealism* and *independence in mind* are positively associated with their *attitudes towards behaviour*. Their perceived *relativism* is negatively associated with their *attitudes towards behaviour*. Their perceived *ethical climate*, *rewards and punishments* and *rent-seeking guanxi* are negatively associated with their perceived *subjective norms*. However, their perceived *favour-seeking guanxi* is negatively associated with their perceived *subjective norms*, which is contrary to the hypothesis. Finally, their perceived *manager's unethical behaviour* is not associated with *subjective norms*.
- 3) This thesis investigates the influences of demographic variables of *gender*, *age*, *education*, *experience*, *firms* and *region*. The results indicate that male Chinese auditors are less affected by their *ethical ideologies*. Further, elder and experienced auditors seem to perceive less behavioural control. Finally, local cultures plays an important role in the Chinese auditors' ethical decision-making process, based on comparison of auditors' ethical decision-making in different regions.

This thesis contributes to the understanding of Chinese auditors' intention when they deal with their clients. This thesis represents the first attempt to apply the TPB to the Chinese auditor-client context, and then decomposing independent variables with the KP micro-level variables to investigate the Chinese auditors' ethical decision-making process. The results have theoretical contributions and practical implications. Further, the results of multi-group comparison also reveal the influence of demographic variables on the Chinese auditors' ethical decision-making process, and provide the basis for further researching these variables. Finally, the review of TPB applications and the KP micro-level model can also assist researchers in utilising these two theoretical instruments more effectively in future studies.

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Chapter 1: Introduction

1.1 Background

Auditors are required to be impartial and without bias, avoiding any conflicts of interest that may arise as a consequence of the auditor-client relationship (International Ethics Standards Board for Accountants [IESBA], 2013, para. 100.5(b)). The health of the auditor-client relationship is one of fundamental dependency in such situations and compliance is subject to a broad range of threats (IESBA, 2013, para. 200.3) such as self-interest and familiarity (IESBA, 2013, para. 200.7). These threats can negatively influence behaviour (viz., volitional decision-making, moral choice and subsequent action) within a relational context. Compared to other Western countries, the auditor-client relationship is a confronting issue in China due to its relatively unexplored cultural differences, and because human relationships are more complex in China than in Western cultures. For example, Hofstede (1984) identified the existence of value systems in China significantly variant to those practiced elsewhere (viz., the Confucian work dynamism), factors that strongly impact the nature and practice of business relationships. Based on this unique value system, Chinese interpersonal relationships, *guanxi*, is commonly practiced and accepted by locals and deeply embedded within business. It acts to complicate the way business is conducted in that it clashes with values underpinning the notion of objectivity. Auditors are much more likely to be conflicted within auditor-client encounters than their Western counterparts.

According to Kleinman and Palmon (2001), studies relating to auditor-client relationships emerged in Western countries during the 1970s. Researchers reviewing existing theories of auditor-client relationships classify them into three categories: the economic model (De Angelo, 1981; Antle, 1982; 1984); the behavioural model (Goldman & Barlev, 1974; Nichols & Price, 1976); and the perceptual model (Shockley, 1982). De Angelo's (1981) economic model is based on economic theory, for example, individuals seek to maximise utility, while Antle's (1982; 1984) model is developed based on agency theory, for example, performance-based compensation contracts (Kleinman & Palmon, 2001). Goldman and Barlev (1974) and Nichols and Price (1976) pay more attention to auditor-client interactions than economic effects or consequences (Kleinman & Palmon, 2001). Organisational theory and sociology

underlie the theoretical premises of these behavioural models. Shockley's (1982) perceptual model focuses on factors such as non-audit services, client dependence, tenure of the auditor, etc.

After reviewing the extant literature, Kleinman and Palmon (2001) argue that "the auditor-client relationship studies remain very shallow ... [and do] ... not include well known literatures and theories created by people who have been doing research in psychology and sociology for many years" (p. 29). They further maintain that these theories "should help us understand the cause, rather than just the effect" (p. 29) because auditors' behaviour is an outcome of the interaction between internal influences (e.g., personal values), external influences (e.g., workplace) and presenting situations (e.g., auditor-client relationships conflict) (Kleinman & Palmon, 2001). Thus they develop and present a multi-level (i.e., individual and organisational) model of auditor-client relationships incorporating prior models and psychological and sociological theories in their book *Understand Auditor-Client Relationships: A Multi-Faceted Analysis*. Quick (2002) reviews the book for the journal *Research in Accounting Regulation* and comments that "empirical testing of this framework will be difficult" (p. 300). This might provide the reason why empirical applications of the full theoretical model are apparently non-existent in the literature. Admittedly, the potential demands of the multi-faceted model are somewhat unattainable, although this does not explain why little behavioural research has been undertaken within this particular setting, especially within the Chinese context.

This discussion portends apparent gaps in the research literature, which this thesis begins to address. Kleinman and Palmon's (2001) recognition of the need to better explain the causation of factors influencing auditor-client interactions within firms and the necessity to consider cultural issues, complicating the process within a Chinese context, provides motivation to pursue those research gaps identified. To assist in this regard, use will be made of an appropriate framework for studying individual behaviour that is widely accepted in organisational psychology. When referring to issues of audit independence, Carpenter and Reimers (2005) suggest that a better model is one which based on a theory developed by psychologists. The Theory of Planned Behaviour (TPB) (Ajzen, 1985) is such a model and widely used to predict individuals' intentions and behaviour in different disciplines including accounting

(e.g., Buchan, 2005; Cohen, Pant, & Sharp, 1994; Gibson & Frakes, 1997; Marquardt & Hoeger, 2009). However, these studies are conducted in a Western cultural context and individual and organisational factors as suggested by Kleinman and Palmon (2001) are not considered. This leads to a further motivation of this thesis to develop a decision-making model based on the TPB incorporating the Kleinman and Palmon (KP) micro-level model of auditor-client relationship variables within a Chinese cultural context. This will allow researchers to better understand what drives Chinese auditors to retain independence in conflict situations with their clients.

1.2 Theoretical framework

The theoretical framework of this study is based on Ajzen's (1985) Theory of Planned Behaviour (TPB) and the KP micro-level model as discussed above. Various associated theories of ethical behaviour involving individual and organisational activities will also be drawn upon as necessary. TPB predicts that an individual's intention is affected by three determinants: *attitudes towards behaviour*, *subjective norms* and *perceived behavioural control*. The KP micro-level model concerns the auditor's intention to maintain independence within the auditor-client context, and posits a number of internal and external variables affecting auditor's intention. The variables adopted by this thesis include *ethical ideologies* (i.e. *relativism* and *idealism*), *interpersonal relationships* (i.e. *favour-seeking guanxi* and *rent-seeking guanxi*), *ethical climate*, *corporate ethical values* (i.e. *rewards and punishments* and *manager's unethical behaviour*) and *code of ethics* (i.e. *independence in mind* and *independence in appearance*). The theoretical framework in this thesis incorporating a universally applicable concept of TPB is presented in Figure 1.

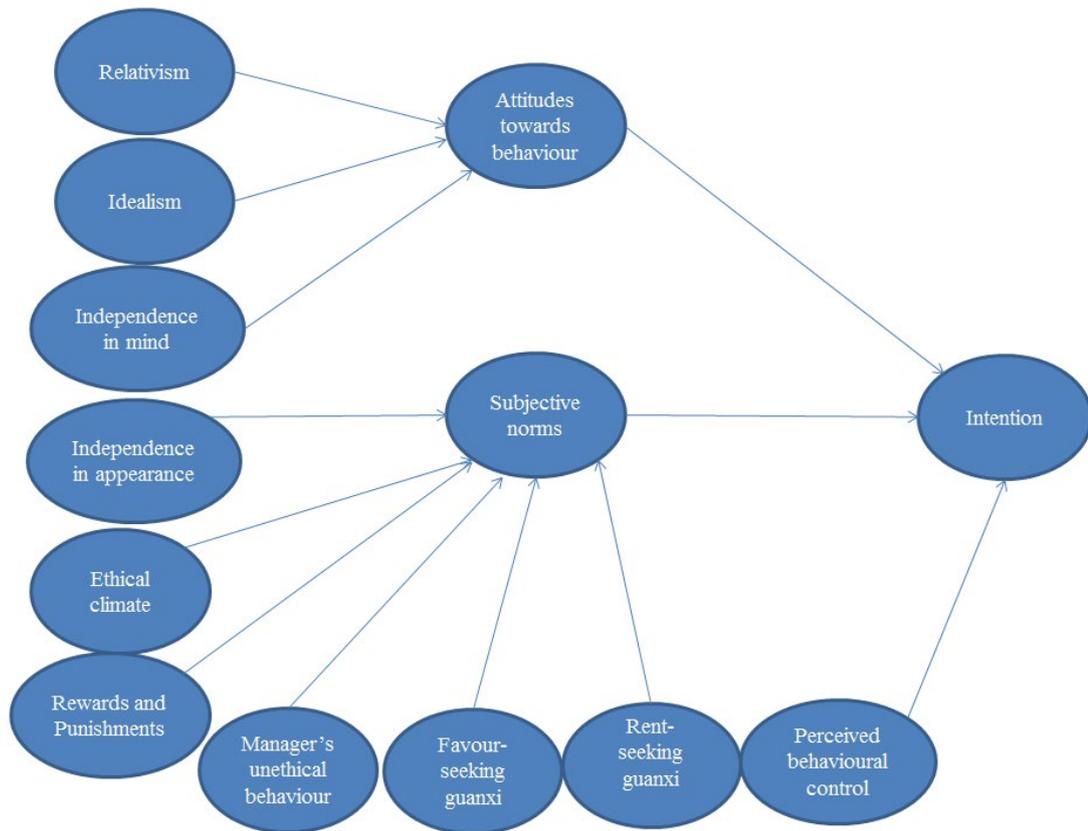


Figure 1: Conceptual framework of this thesis

1.3 Objectives and research questions of this thesis

The aim of this thesis is to investigate Chinese auditors' intention and the ethical decision-making process relating to the maintenance of audit independence specific to auditor-client relationship situations. This thesis adopts the TPB model and the KP micro-level model variables. The influence of demographic factors considered to be associated with the ethical decision-making process are also investigated in this thesis. Hence, the study aims to address the following three specific research objectives:

- 1) To examine whether TPB can be applied to Chinese auditors when they are confronted with pressure from their clients.
- 2) To investigate the Chinese auditors' ethical decision-making process through decomposing the independent TPB variables within the KP micro-level model variables within an auditor-client context.
- 3) To compare the differences in ethical decision-making processes between Chinese auditor groups categorised by their demographic variables.

The first research objective is to investigate factors affecting Chinese auditors' ethical intention within the auditor-client context based on the TPB model. The TPB model posits that *intention* is affected by *attitudes towards behaviour*, *subjective norms* and *perceived behavioural control*.

The second research objective is to further investigate the Chinese auditors' ethical decision-making process through decomposing the TPB variables by the KP micro-level model variables. The KP micro-level model variables include *ethical ideologies*, *code of ethics*, *organisational ethical context* (including *ethical climate* and *corporate ethical value*) and *interpersonal relationships*.

The final research objective is to explore the influences of demographic factors on the Chinese auditors' ethical decision-making process through comparing differences between groups. These factors include *gender*, *age*, *education*, *experience*, *firms* and *region*.

1.4 Significance of this thesis

This thesis has theoretical and practical importance. The thesis is the first comprehensive investigation as to how Chinese audit professionals maintain their independence when considering relationships with business clients. Although prior studies (e.g., De Angelo, 1981, Antle, 1984, Kleinman & Palmon, 2001) construct models based on different theories, they fail to fully consider antecedents, including personal and organisational factors. Therefore, researching these associations will contribute to understanding behaviour within Chinese auditor-client relationships. The results of this thesis will help fill an important gap in the research literature. This assertion is particularly relevant in the sense that it will also be conducted in a virtually unexplored oriental context and allow for specific Chinese cultural characteristics. Furthermore, the model constructed by this thesis can predict Chinese auditors' ethical intention within auditor-client relationships, and can be utilised as an instrument by regulators and public to understand the Chinese auditors' ethical decision-making process when confronted by pressure from their clients. The model can also help managers in accounting firms realise whether their policies could restrict their

employees' unethical behaviours, and enhance their employees' moral reasoning levels.

Secondly, reviews in this thesis also add theoretical contributions to current literature. Through reviewing the TPB studies, this thesis assists future business researchers by providing an extensive summary of the use of TPB in the business context. After the TPB was first proposed in 1985, this theory has received considerable research interest (Armitage & Conner, 2001). Many business studies utilise this model to investigate intentions and behaviours across various business contexts including marketing, management and accounting. Nasco, Toledo, and Mykytyn (2008) note that the TPB is a well-established model investigating *intention* across various business fields. Thus, this model is considered as a useful tool to better understand and predict an individual's business decisions. However, whilst TPB has been used in business fields noted above, this thesis extends reviews of the key findings and features of these applications to the Chinese auditor-client relationship, which will assist researchers to better understand the TPB conceptual framework, and the capacity to develop this model for adaptation to new business contexts. The findings of this thesis can shed light on the avenues for applications of the TPB in business context. Furthermore, this thesis is the first study to review the KP micro-level model by summarising empirical findings related with this model. Based on the results, future studies can better utilise variables posited by the KP micro-level model to investigate the Chinese auditors' ethical decision-making process in the auditor-client context.

Finally, this thesis provides a basis for further research into the influences of demographic variables on the ethical decision-making process in China. Although there are a number of prior studies (e.g., Haines & Leonard, 2007; Shafer, 2008; Musbah, Cowton, & Tyfa, 2016) that explore the effect demographic factors, few of them discern the differences in the ethical decision-making process between people who characterised with these factors. Thus, this thesis distinguishes Chinese auditors into different groups based on their demographic factors (including *gender, age, education, experience, firms* and *region*) and compares their ethical decision-making processes. The results provide additional insights into how the ethical decision-making process varies under different circumstances.

There is an extensive range of business ethics literature including reference to various models of ethical behaviour. In this instance, Azjen's TPB model provides a useful framework for relating behavioural perspectives affecting moral choice. A number of personal and organisational models will be incorporated into this study of auditor-client relationships as a way of exploring the veracity of anticipated associations. Further, this thesis also reveals the differences in the ethical decision-making process between Chinese auditor's groups based on their demographic information. These results not only help researchers further explore the influence of demographic factors, but also provides Chinese legislators and standard setters some implications for how to improve Chinese auditor's ethical behaviour when they are faced with pressure from their clients.

1.5 Organisation of this thesis

The remainder of this thesis is organised as follows. In Chapter 2, the application of the TPB is reviewed. The results demonstrate that the TPB is appropriate for researching the Chinese auditors' ethical decision-making process. In Chapter 3, the KP micro-level model is introduced and reviewed. Variables have been selected to integrate with the TPB constructs. In Chapter 4, the conceptual framework of this thesis is developed, and hypotheses for the variables are developed. In Chapter 5, the research methods, including research methodology and measurements for variables, are described. In Chapter 6, the results of this thesis are presented. In Chapter 7, the significant findings and contributions of this thesis are discussed and concluded. It also identifies the limitations of this thesis and provides avenues for future studies.

Chapter 2: Review of the TPB applications in business research

This chapter reviews the TPB and its applications in the business context. Through this review, the chapter achieves the following three objectives:

- 1) To confirm the TPB's overall efficacy and validity by reviewing its effectiveness in studies featuring a business context.
- 2) To identify new trends in how the TPB is applied by summarising new variables analysed within its theoretical framework.
- 3) To examine the methodological issues in applying the TPB to business research, including data collection methods, sample selection and measurement issues.

Hence, this chapter is organised as follows. Section 2.1 introduces the background of the TPB application reviews for business studies. Section 2.2 reviews the establishment and evolution of the TPB. Section 2.3 discusses the research method used in this chapter. Section 2.4 presents the results and a discussion of the findings. Section 2.5 concludes the findings and identifies research avenues for this thesis.

2.1 Introduction

Predicting and explaining human intention and behaviour are difficult tasks (Ajzen, 1991) that involve an individual's psychological antecedents and social and institutional influences. Studies (e.g., Campbell, 1963; Sherman & Fazio, 1983) find that individuals' attitudes and personal traits influence intention and behaviour. Jeffrey, Dilla, and Weatherholt (2004) also explore social and group influences on individuals' decision-making intentions. Ajzen's TPB model, which uses personal and social variables to explain human intention and behaviour, is a useful conceptual framework through which to understand various types of behaviour such as drinking problems and leisure behaviour decisions (Ajzen, 1991). TPB is one of the most influential and popular theories for researching human behaviour (Ajzen, 2002). It is widely applied in business research to better understand and predict business decision-making processes, and is specifically beneficial for management and marketing fields of research. For instance, the TPB helps explain business behaviours, including a

manager's decision to violate a moral principle or a customer's choice between similar products. The management intentions driving ethical issues are of increasing concern among researchers (Zgheib, 2005), given managers need to deal with various types of moral conflicts in the workplace. Unethical intentions and behaviour include abuse of power, acceptance of bribes, committing financial frauds, etc. TPB is considered to be one of the best-known models for predicting unethical behaviour (Leonard, Cronan, & Kreie, 2004). Furthermore, many studies (e.g., Mathieson, 1991; Cook, Kerr, & Moore, 2002; Carpenter & Reimers, 2005; Armitage & Talibudeen, 2010; Lee, Bonn, & Cho, 2015) use TPB as their theoretical framework to explore the antecedents influencing business intentions and behaviour, and obtain a host of information that proves very useful in explaining individual intentions (Chang, 1998).

Due to the TPB's popularity, some researchers review its applications by summarising the features and key findings of related studies. For instance, Godin and Kok (1996) review the TPB's application to health-related behaviour, and Armitage and Conner (2001) review the TPB literature to 1997 in all domains to confirm the effectiveness of the TPB model through a meta-analysis. These reviews provide a better understanding of the TPB model, but the papers being examined are not related to business behaviour. Moreover, the majority of these reviews were conducted over the past decade, and as such do not reflect the new trends in and findings about the TPB's application. Michaelidou and Hassan's (2014) recent review is only concerned with consumer behaviour.

Given the significant amount of TPB-related research available, this chapter presents an up-to-date summary of the results of studies on the TPB in business research contexts that will prove a useful resource in explaining individuals' business intentions and behaviour. It also assists in contextualising the audit decision-making focus of this thesis.

2.2 The development of the TPB

2.2.1 The Theory of Planned Behaviour (TPB)

Ajzen and Fishbein's (1980) Theory of Reasoned Action (TRA) predicts human intention and behaviour by providing a parsimonious explanation of an individual's behaviour. According to the TRA, two antecedents (*attitudes towards behaviour* and *subjective norms*) can affect an individual's intention and then behaviour. *Attitudes towards behaviour* and *subjective norms* represent the personality traits and social influences that affect an individual's intention to perform behaviour. The former concept refers to the degree to which an individual has an assessment of the behaviour in question. Ajzen and Madden (1986) find that *attitudes towards behaviour* is a positive indicator of *intention*. Armitage and Conner (2001) indicate that *attitudes towards behaviour* is the dominant factor in predicting *intention* in the TPB conceptual framework.

Subjective norms refer to the perceived influence of "others" on an individual's behavioural intention, specifically the effect of social pressure on *intention* in deciding whether to perform a behaviour. Given that a favourable view of significant others is important to the individual, they must evaluate those perceptions before acting. Fishbein and Ajzen (1975) suggest that the more people perceive that significant others believe they should perform a behaviour, the more likely they are to do so.

Although the TRA is successfully used to explain intention and behaviour in many studies (e.g., Bagozzi, 1992; Gibson & Frakes, 1997), it is limited in its ability to predict behaviour under incomplete volitional control. For instance, individuals may feel less controlling influence over their behaviour when incomplete volitional control exists due to a lack of skills, information, resources, etc. Ajzen and Madden (1986) also argue that the types of behaviour that occur under incomplete volitional control are more common than those that occur under volitional control. To address the TRA's deficiency, the TPB extended it by adding a further dimension called *perceived behavioural control*. This new factor reflects people's evaluations of how easy or difficult it is for them to perform a behaviour (Ajzen, 1991). Bandura (1982) refers to *perceived behavioural control* as being "... concerned with judgements of how well

one can execute courses of action required to deal with prospective situations” (1982, p. 122).

Compared with the TRA, studies that use the TPB (e.g., Chang, 1998; Hansen, Jensen, & Solgaard, 2004; Anderson & Lavalley, 2008) show that it explains a greater proportion of variance in individuals’ intentions, and thus is better at predicting behaviour. Therefore, *attitudes towards behaviour*, *subjective norms*, *perceived behavioural control*, *intention* and *behaviour* constitute the TPB (Figure 2).

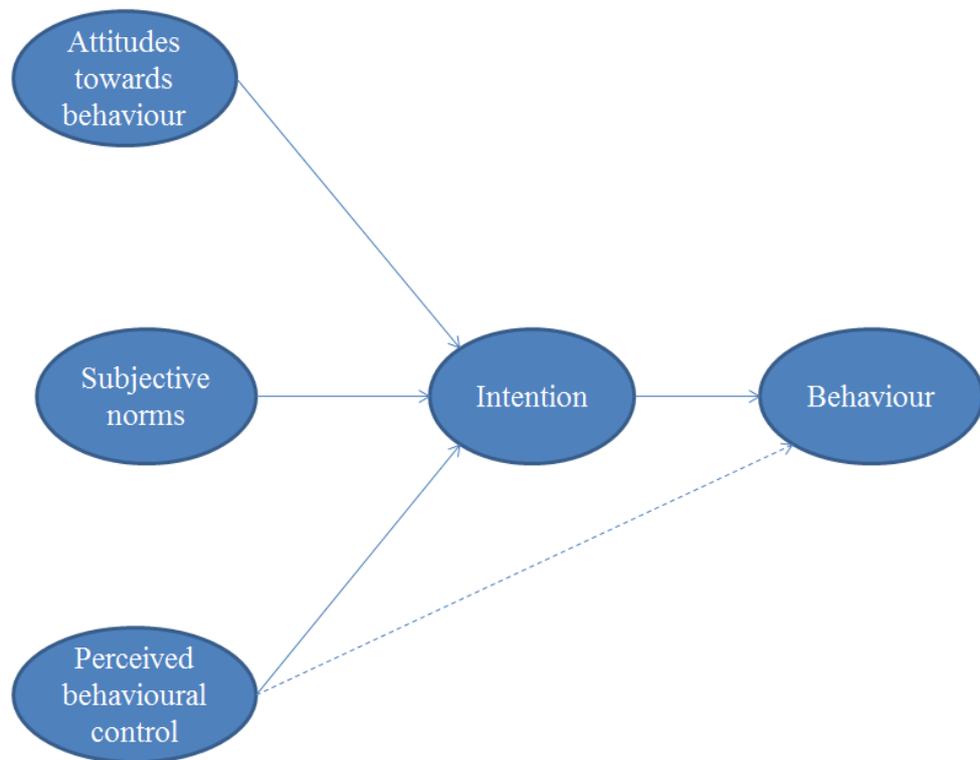


Figure 2: Theory of Planned Behaviour (Ajzen, 1991)

According to the TPB, behaviour is based on *intention* (Buchan, 2005). Ajzen and Fishbein (1980) define *intention* as “how hard people are willing to try ... how much of an effort they are willing to exert in order to perform the behavior” (p. 181). Most studies demonstrate that *intention* is a strong predictor of behaviour (Leonard et al., 2004), and this positive association between the two gives researchers the means to measure behavioural intention, rather than the behaviour itself, as directly observing

the latter is a difficult task (Carpenter & Reimers, 2005). Fishbein and Ajzen (1975) also describe “intention” as the subjective possibility that an individual will perform certain types of behaviour, and in this context, it is a worthy surrogate for the behaviour that Ajzen’s (1985) past research convincingly demonstrates. Armitage and Conner (2001) indicate that the TPB can explain a considerable proportion of the variance in actual behaviour. Hence, the TPB is reliable for predicting behaviour.

2.2.2 Evolution of the TPB

Since its inception in 1991, the TPB has evolved to integrate other variables within its conceptual framework. According to Ajzen (1991), the TPB is a model that is open to including variables identified as critical in determining an individual’s intention. Not surprisingly, other theories have been built on Ajzen’s original TPB model. Michaelidou and Hassan (2014) are responsible for two approaches that build on the TPB: the Theory of Acceptance Model (TAM) and the Model of Goal-directed Behaviour (MGB)—both of which are well known and widely accepted. Davis Jr (1986) uses the TAM to predict individuals’ behaviour and intention to accept Information Technologies/Information Systems (ITs/ISs). According to this theory, an individual’s intention to use a new technology is affected by three factors: *attitude towards use*, *perceived usefulness* and *perceived ease of use*—the first of which is influenced by the other two. The MGB is a deeper, broader version of the TPB proposed by Perugini and Bagozzi (2001). In this theory, emotion, motivational constructs and past behaviour are integrated with the TPB model to predict an individual’s intention/behaviour. Han and Yoon (2015) show that the MGB can be used to avoid the deficiencies of the TPB, which neglects individuals’ emotions and motivations. Past behaviour is also considered, as it can influence current and future behaviour (Conner & Armitage, 1998)

Taylor and Todd’s (1995) approach involves the decomposition of the TPB constructs. Their Decomposed Theory of Planned Behaviour model decomposes three independent variables—*attitudes towards behaviour*, *subjective norms* and *perceived behavioural control*—into attitudinal, normative and control belief structures. Each determinant of *intention* in the TPB is influenced by several antecedents selected from

the innovation characteristic literature (Taylor & Todd, 1995). Many studies incorporate these newly developed theories into the TPB to better understand individuals' intentions (e.g., Yang, 2013), or compare their efficacy in using the TPB to explain *intention* (e.g., Huh, Kin & Law, 2009; Taylor & Todd, 1995; Cheng, 2015).

2.3 Literature review method

This review of the TPB literature uses academic journal articles from 1991 to 2015 as its model, a widely accepted practice for measuring human intention and behaviour since 1991. Only studies that apply the TPB in a business context are analysed. The focus is the TPB model's effectiveness in business research and any research-related methodological issues such as data collection methods, measurements and sample selections.

The research method used herein is similar to that used in the TPB literature reviews conducted by Armitage and Conner (2001) and Michaelidou and Hassan (2014). The sample selection process followed specific criteria. First, key words such as *theory of planned behaviour* are used to search for the target papers in the EBSCO database. Second, only high-quality papers (those ranked B and above, i.e., A*, A and B) on the Australian Business Dean's Council (ABDC) Journal Quality List are included. Third, only papers that use the TPB as their theoretical base are included. For example, papers are eliminated if they only discuss the TPB in the literature review. This process initially yields 470 papers, with only 140 papers remaining after applying the TPB theoretical base criteria. The final sample is 149 papers from 36 journals (Table 1).

Table 1: Publication of TPB-related papers

Publication	Number
Journal of Business Ethics (JBE)	22
Journal of Business Research (JBR)	13
International Journal of Hospitality Management (IJHM)	12
Journal of Economic Psychology (JEP)	11
Journal of Vocational Behaviour (JVB)	10
Journal of Computer Information Systems (JCIS)	8
British Journal of Psychology (BJP)	6
Journal of Marketing Management (JMM)	5
Journal of Applied Psychology (JAP)	5
Applied Psychology: An International Review (AP)	4
Ecological Economics (EE)	4
International Journal of Information Management (IJIM)	4
Journal of Gambling Studies (JGS)	4
Journal of Retailing and Consumer Services (JRCS)	4
Information Systems Research (ISR)	3
Journal of Consumer Psychology (JCP)	3
Journal of Sustainable Tourism (JST)	3
Technological Forecasting and Social Change (TFSC)	3
Academy of Management Journal (AMJ)	2
Academy of Management Learning and Education (AMLE)	2
Accounting Horizons (AH)	2
Decision Support Systems (DSS)	2
International Journal of Contemporary Hospitality Management (IJCHM)	2
Journal of Business Venturing (JBV)	2
Journal of Small Business Management (JSBM)	2
Academy of Taiwan Business Management Review (ATBMR)	1
American Journal of Public Health (AJPH)	1
Business Ethics: A European Review (BEAER)	1
Career Development International (CDI)	1
Communication Research (CR)	1
Entrepreneurship Research Journal (ERJ)	1
European Journal of Information Systems (EJIS)	1
European Journal of Marketing (EJM)	1
Health Marketing Quarterly (HMQ)	1
International Journal of Consumer Studies (IJCS)	1
MIS quarterly (MISQ)	1
Total	149

Table 1 suggests that a considerable number of the papers reviewed are published in journals dedicated to examining business decisions or activities, such as the *Journal of Business Ethics* (22 papers) and the *Journal of Business Research* (13 papers), which focus on investigating variables' influences on individuals' decisions about whether to perform specific types of behaviour (e.g., Carr & Sequeira, 2007; Zapkau, Schwens, Steinmetz, & Kabst, 2015 [JBR]; Buchan, 2005; Cohen et al., 2010 [JBE]).

2.4 Results of the literature review and discussion

2.4.1 Results of the TPB's effectiveness

The results, presented in Table 2, suggest that researchers have applied the TPB in various contexts to explore whether the associations within the TPB model are supported. This validates *intention* as an appropriate surrogate for *behaviour*, and is influenced by an individual's *attitudes towards behaviour*, *subjective norms* and *perceived behavioural control*. For instance, 86 of the 144 papers (60%) fully support the associations within the TPB. In addition, 133 of the 144 papers (92%) support the association between *intention* and *attitudes towards behaviour*. This result is consistent with Armitage and Conner's (2001) findings that *attitudes towards behaviour* is the strongest predictor of *intention*, achieved via a meta-analysis of 187 independent empirical tests. As Table 2 shows, 113 papers suggest that *subjective norms* affect *intention*, whereas 110 indicate that *perceived behavioural control* also affects *intention*.

Table 2: The effectiveness of TPB model

Author: Publication	Year	The effect of TPB variables on behavioural intention		
		<i>Attitudes towards behaviour</i>	<i>Subjective norms</i>	<i>Perceived behavioural control</i>
Mathieson: ISR	1991	Yes	Yes	Yes
Randall & Gibson: JBE	1991	Yes	Yes	Yes
Ajzen & Drive: JCP	1992	Yes	Yes	Yes
Parker et al.: JAP	1992	Yes	Yes	Yes
East: JEP	1993	Yes	Yes	Yes
Randall: JBE	1994	Yes	No	Yes
Lynne et al.: JEP	1995	Yes	Yes	Yes
Taylor & Todd: ISR	1995	Yes	Yes	Yes
Harrison et al.: ISR	1997	Yes	Yes	Yes
Chang: JBE	1998	Yes	Yes	Yes
Notani: JCP	1998	Yes	Partially supported	Partially supported
Liao et al.: IJIM	1999	Yes	No	Yes
Cordano & Irene: AMJ	2000	Yes	Yes	Yes, but negatively affected
Flannery et al.: AMJ	2000	Yes	Yes	Yes
Krueger et al.: JBV	2000	Yes	No	Yes
Shaw et al.: JMM	2000	Yes	Yes	Yes
Bamberg: JEP	2002	Yes	Yes	Yes

Author: Publication	Year	The effect of TPB variables on behavioural intention		
		<i>Attitudes towards behaviour</i>	<i>Subjective norms</i>	<i>Perceived behavioural control</i>
Cook et al.: JEP	2002	Yes	Yes	Yes
Fukukawa: JBE	2002	Yes	Yes	Yes
Van der Zee et al.: JAP	2002	Yes	Yes	Yes
Elliott et al.: JAP	2003	Yes	Yes	Yes
Hsu & Kuo: JBE	2003	Yes	Yes	Yes
Kidwell & Jewell: JCP	2003	Yes	Yes	Yes
Millar et al.: JVB	2003	Yes	No	No
Keen et al.: JBR	2004	Yes	Yes	Yes
Hansen et al.: IJIM	2004	Yes	Yes	Yes
Kidwell & Turrisi: JEP	2004	Yes	Yes	Yes
Neuwirth & Frederick: CR	2004	Yes	Yes	Yes
Van Hoof et al.: JVB	2004	Yes	Yes	Yes
Buchan: JBE	2005	Yes	No	Yes
Carpenter & Reimers: JBE	2005	Yes	Yes	Yes
Cheng et al.: IJHM	2005	Yes	Yes	Yes
O'Connor et al.: BJP	2005	Yes	Partially	Partially
Van Hooft et al.: JVB	2005	Yes	Yes	Yes
Wanberg et al.: JAP	2005	No	Yes	Yes
Arnold et al.: JVB	2006	Yes	Yes	Yes
Kolvereid & Isaksen: JBV	2006	Yes	Yes	No
Pavlou & Fygenon: MISQ	2006	Yes	No	Yes
Song et al.: JVB	2006	Yes	Yes	No
Conner et al.: BJP	2007	Yes	Yes	Yes
Gibson et al.: JVB	2007	Yes	Yes	Yes
Carr and Sequeira: JBR	2007	Yes	No test	Yes
O'Fallon et al.: IJHM	2007	No test	No test	No test
Anderson & Lavallee: AP	2008	Yes	Yes	Yes
Armitage: BJP	2008	Yes	Yes	Yes
Cheng & Lam: IJHM	2008	No	Yes	Yes
Creed et al.: JVB	2008	Yes	Yes	Yes
Khalifa & She: JCIS	2008	Yes	Yes	No
Kulik et al.: JBE	2008	No test	No test	No test
Prendergast et al.: EJM	2008	Yes	No test	No test
Skår et al.: AP	2008	No	No	Yes
Nasco et al.: JBR	2008	Yes	Yes	No
Vermeir & Verbeke: EE	2008	Yes	Yes	Yes
Abrahamse & Steg: JEP	2009	Yes	Yes	Yes
Chow & Chen: JCIS	2009	Yes	Yes	Yes
Elliott & Armitage: BJP	2009	Yes	Yes	Yes
Heinze & Hu: EJIS	2009	Yes	No	Yes
Huh et al.: IJHM	2009	Yes	Yes	Yes
Hunsinger & Smith: JCIS	2009	Yes	Yes	Yes
Hurtz & Williams: JAP	2009	Yes	No	No
Kaufmann et al.: EE	2009	Yes	Yes	Yes

Author: Publication	Year	The effect of TPB variables on behavioural intention		
		<i>Attitudes towards behaviour</i>	<i>Subjective norms</i>	<i>Perceived behavioural control</i>
Kulviwat et al.: JBR	2009	Yes	Yes	No test
Lee: DSS	2009	Yes	No	Yes
Lemmens et al.: BJP	2009	Yes	Yes	Partially supported
Liao et al.: JCIS	2009	Yes	Yes	Yes
Guo et al.: JBR	2009	Yes	No	Yes
De Cannière et al.: JBR	2009	Yes	Yes	Yes
Zikic & Saks: JVB	2009	Yes	Yes	Yes
Armitage & Talibudeen: BJP	2010	Yes	Yes	Yes
Alsajjan & Dennis: JBR	2010	Yes	Yes	Yes
Brown et al.: JST	2010	Yes	Yes	Yes
Cohen et al.: JBE	2010	Yes	Yes	Yes
Cordano et al.: JBE	2010	Yes	Yes	Yes
Croy et al.: JEP	2010	Yes	Yes	Yes
Farah & Newman: JBR	2010	Yes	Yes	Yes
Fukukawa & Ennew: JBE	2010	No	Yes	Yes
Han & Kim.: IJHM	2010	Yes	Yes	No
Henle et al.: JBE	2010	Yes	Yes	Yes
Kim & Han: JST	2010	Yes	Yes	Yes
Lee & Chen: JCIS	2010	Yes	No test	Yes
Phau & Ng: JBE	2010	Yes	No test	No test
Grandón et al.: JBR	2011	Yes	Yes	No
Litvine & Wüstenhagen: EE	2011	Yes	Yes	Yes
Lokhorst et al.: AP	2011	Yes	No	No
Pookulangara et al.: JRSC	2011	Yes	Yes	Partially affected
Rabl: JBE	2011	Yes	Yes	Yes
Rong-Da Liang & Lim: IJHM	2011	Yes	Yes	Yes
Sorensen et al.: AJPH	2011	Yes	Yes	Yes
Yoon: JBE	2011	Yes	Yes	Yes
Bagley et al.: AH	2012	Yes	Yes	Yes
Chou et al.: IJHM	2012	Yes	No	Yes
Goethner et al.: JEP	2012	Yes	No	Yes
Jaime: JBR	2012	Yes	Yes	Partially affected
Khalifa et al.: JCIS	2012	Yes	Yes	Yes
Lee & Gould: IJHM	2012	Yes	Yes	Yes
Moons & De Pelsmacker: JMM	2012	Yes	Yes	Yes
Obschonka et al.: JVB	2012	Yes	Yes	Yes
Sardžoska & Tang: JBE	2012	No	Yes	Yes
Serenari et al.: JST	2012	Yes	Yes	Yes
Shim et al.: JEP	2012	Yes	Yes	Yes
Thomas & Lamm: JBE	2012	No test	No test	No test
Verheul et al.: JEP	2012	Yes	Yes	Yes
Wu & Tang: JGS	2012	Yes	Yes	Yes, but negative

Author: Publication	Year	The effect of TPB variables on behavioural intention		
		<i>Attitudes towards behaviour</i>	<i>Subjective norms</i>	<i>Perceived behavioural control</i>
Yang: JRSC	2012	Yes	Yes	Yes
Al-Debei et al.: DSS	2013	Yes	Yes	Yes
Andrews & Bianchi: JBR	2013	Yes	No	No test
Dalton et al.: AH	2013	Yes	Yes	Yes
Kim, Han et al.: IJHM	2013	Yes	No	Yes
Kim, Njite et al.: IJHM	2013	Yes	Yes	No
Läpple & Kelley: EE	2013	Yes	Yes	Yes
Lee: JGS	2013	Yes	Yes	No
Onwezen et al.: JEP	2013	Yes	Yes	Yes
Wu et al.: JGS	2013	Yes	No	No
Yang: JCIS	2013	No	No	Yes
Baden: AMLE	2014	Yes	Yes	Yes
Chan: AP	2014	No test	No test	No test
Chen & Tung: IJHM	2014	Yes	Yes	Yes
Cheng & Chu: JBE	2014	Yes	Yes	Yes
Cheng & Huang: IJIM	2014	No	No test	No test
Girona & Korgaonkar: JMM	2014	Yes	Partially	Partially
Han & Hwang: IJCHM	2014	No	Yes	No
Harms et al.: TFSC	2014	Yes	Yes	Yes
Jebarajakirthy & Lobo: JRSC	2014	Yes	No	No
Lee et al.: JGS	2014	Yes	Yes	No
Loureiro & de Araújo: JRSC	2014	Yes	Yes	Yes
Mäntymäki et al.: IJIM	2014	Yes	Yes	Yes
Michaelidou & Hassan: JMM	2014	No test	No test	No test
Oren et al.: JVB	2014	Yes	Yes	Yes
Phau et al.: JMM	2014	Yes	Yes	Yes
Swaim et al.: JBE	2014	Yes	Yes	No
Cheng: JBE	2015	Yes	Yes	Yes
Chu et al.: JBE	2015	No	No	Yes
Zapkau et al.: JBR	2015	Yes	Yes	Yes
Guerrero & Hatala: CDI	2015	No	No	Yes
Hajli et al.: TFSC	2015	Yes	Yes	Yes
Han & Yoon: IJHM	2015	Yes	Yes	No
Lee et al.: IJCHM	2015	Yes	Yes	Yes
Leroy et al.: JSBM	2015	Yes	Yes	Yes
Peluso: BEAER	2015	Yes	Yes	Partially supported
Previte et al.: IJCS	2015	Yes	Yes	Yes
Rauch & Hulsink: AMLE	2015	Yes	No test	Yes
Ramamonjiarivelo et al.: HMQ	2015	Yes	Yes	Yes
Sieger & Monsen: JSBM	2015	Yes	Partially supported	Yes
Tan et al.: ATBMR	2015	Yes	Yes	Yes

Author: Publication	Year	The effect of TPB variables on behavioural intention		
		<i>Attitudes towards behaviour</i>	<i>Subjective norms</i>	<i>Perceived behavioural control</i>
Wated & Sanchez: JBE	2015	Yes	Yes	No
Wu et al.: JBR	2015	Yes	Yes	No
Xiao et al.: JCIS	2015	Yes	Yes	No
Yun & Lee: TFSC	2015	Yes	Yes	Yes
Zhang et al.: ERJ	2015	No	Yes	Yes

Five of the papers reviewed do not examine the relationships between *intention* and independent antecedents. O’Fallon, Gursoy, and Swanger (2007) use the TPB conceptual framework to investigate the consumer’s preference for label contents. Kulik, O’Fallon, and Salimath (2008) use this theory to analyse the unethical behaviour involved in the Enron fraud case. In contrast, Thomas and Lamm (2012) and Chan (2013) develop a new model based on the TPB using the derivation method. Michaelidou and Hassan (2014) further review the evolution of the TRA and the TPB. In general, the results suggest that the TPB has been successfully applied in business research over the last 25 years as an effective approach for predicting human behaviour.

Taylor and Todd (1995) decompose the independent variables within the TPB model into specific belief dimensions, and suggest that the new model better explains individuals’ intentions because the new variables include salient beliefs identified in previous studies. Similarly, other studies (e.g., Lee, 2009; Kim & Han, 2010; Wu, Cheng, & Cheng, 2015) also decompose the TPB model by exploring new factors that influence the independent antecedents in the TPB’s conceptual framework. The following four sections report and discuss the results and measures for *attitudes towards behaviour*, *subjective norms*, *perceived behavioural control* and *intention* in the TPB model.

2.4.2 Attitudes towards behaviour

Behavioural beliefs pertain to an individual's assessment of questionable behaviour. Fishbein and Ajzen (1975) suggest that individuals' behavioural beliefs underpin their attitudes. These beliefs are examined in the literature, with 52 variables identified in this review as determinants of *attitudes towards behaviour* (Table 3). Among these variables, *ease of use* and *perceived usefulness* are best known to influence *attitudes towards behaviour* in e-commerce studies. Andrews and Bianchi (2013) point out that using internet technology can help researchers determine which beliefs affect individuals' attitudes towards e-commerce. Most studies (e.g., Liao, Shao, Wang, & Chen, 1999; Pavlou & Fygenson, 2006; Lee, 2009; Lee & Chen, 2010; Yang, 2013) confirm that *ease of use* affects *attitudes towards behaviour*. Others, such as Andrews and Bianchi (2013), do not report this relationship, as the respondents are already familiar with using the internet.

Table 3: Variables identified as determinants for *attitudes towards behaviour*

Variables*	Author: Publication	Year	Findings
<i>Ease of use</i>	Liao et al.: IJIM	1999	<i>Ease of use</i> is significant associated with attitude
	Pavlou & Fygenson: MISQ	2006	<i>Perceived ease of use</i> has positive effects on attitudes towards e-commerce
	Lee: DSS	2009	<i>Perceived ease of use</i> has positive effects on consumers' attitudes
	Lee & Chen: JCIS	2010	<i>Perceived ease of use</i> has positive effects on consumers' attitudes
	Andrews & Bianchi: JBR	2013	<i>Ease of use</i> cannot affect consumers' attitudes
	Yang: JCIS	2013	<i>Ease of use</i> has positive effects on American consumers' attitudes
<i>Perceived usefulness</i>	Pavlou & Fygenson: MISQ	2006	<i>Perceived usefulness</i> has positive effects on attitudes towards e-commerce
	Lee: DSS	2009	<i>Perceived usefulness</i> has positive effects on consumers' attitudes
	Lee & Chen: JCIS	2010	<i>Perceived usefulness</i> has positive effects on consumers' attitudes
	Yang: JRSC	2012	<i>Perceived usefulness</i> has positive effects on consumers' attitudes
	Yang: JCIS	2013	<i>Perceived usefulness</i> has positive effects on American consumers' attitudes
<i>Compatibility</i>	Mäntymäki et al.: IJIM	2014	<i>Perceived usefulness</i> has positive effects on teenagers' attitudes
	Liao et al.: IJIM	1999	<i>Compatibility</i> is significant associated with attitude
	Chou et al.: IJHM	2012	<i>Compatibility</i> has positive effects on attitude
	Andrews & Bianchi: JBR	2013	<i>Compatibility</i> affects consumers' attitudes

Variables*	Author: Publication	Year	Findings
<i>Behavioural belief</i>	Gironda & Korgaonkar: JMM	2014	<i>Compatibility</i> has positive effects on attitude towards Social Networking Site usage
	Henle et al.: JBE	2010	<i>Behavioural belief</i> (belief strength) positively affects attitudes towards time theft
	Kim & Han: JST	2010	<i>Behavioural belief</i> positively affects attitudes towards eco-friendly behaviours
	Kim, Han et al.: IJHM	2013	<i>Behavioural belief</i> positively affects consumers' attitudes
<i>Relative advantage</i>	Wu et al.: JBR	2015	<i>Behavioural belief</i> (expertise, gender, position) positively affects government employees' attitudes
	Liao et al.: IJIM	1999	<i>Relative advantage</i> is significant associated with attitude
	Chou et al.: IJHM	2012	<i>Relative advantage</i> has direct positive effects on attitude
	Andrews & Bianchi: JBR	2013	<i>Relative advantage</i> cannot affect consumers' attitudes
<i>Trust</i>	Gironda & Korgaonkar: JMM	2014	<i>Relative advantage</i> has positive effects on attitude towards SNS usage
	Pavlou & Fygenson: MISQ	2006	<i>Trust</i> has positive effects on attitudes towards e-commerce
	Lee: DSS	2009	<i>Trust</i> has positive effects on consumers' attitudes
	Yun & Lee: TFSC	2015	<i>Social trust</i> has positive effects on consumers' attitudes
<i>Outcome evaluation</i>	Lee et al.: IJCHM	2015	<i>Trust</i> has positive effects on consumers' attitudes
	Henle et al.: JBE	2010	<i>Outcome evaluation</i> positively affects attitudes time theft
	Kim, Ham et al.: IJHM	2013	<i>Outcome evaluation</i> positively affects consumers' attitudes
	Wu et al.: JBR	2015	<i>Outcome evaluation</i> positively affects government employees' attitudes
<i>Past behaviour</i>	Elliott et al.: JAP	2003	<i>Prior behaviour</i> has positive effects on drivers' attitudes
	Jaime: JBR	2012	<i>Past behaviour</i> positively affects managers' attitudes
<i>Perceived enjoyment</i>	Han & Hwang: IJCHM	2014	<i>Frequency of past behaviour</i> has positive effects on golfers' attitudes
	Yang: JRSC	2012	<i>Perceived enjoyment</i> has positive effects on consumers' attitudes
	Yang: JCIS	2013	<i>Perceived enjoyment</i> has positive effects on American consumers' attitudes
<i>Anticipated emotions</i>	Mäntymäki et al.: IJIM	2014	<i>Perceived enjoyment</i> has positive effects on teenagers' attitudes
	Han & Hwang: IJCHM	2014	<i>Positive anticipated emotions</i> has positive effects on golfers' attitudes
	Han & Hwang: IJCHM	2014	<i>Negative anticipated emotions</i> cannot affect golfers' attitudes
	Guo et al.: JBR	2009	<i>Anticipated emotions</i> affects consumers' attitudes
<i>Perceived benefit</i>	Lee: DSS	2009	<i>Perceived benefit</i> has positive effects on consumers' attitudes
	Yoon: JBE	2011	<i>Perceived benefit</i> has positive effects on attitude of individuals towards digital piracy
<i>Perceived effectiveness</i>	Han & Kim: IJHM	2010	<i>Perceived effectiveness</i> positively affects intention to choose green hotel
	Kim & Han: JST	2010	<i>Perceived customer effectiveness</i> positively affects attitudes towards eco-friendly behaviours

Variables*	Author: Publication	Year	Findings
<i>Perceived risk</i>	Lee: DSS	2009	<i>Perceived risk</i> has positive effects on consumers' attitudes
	Yoon: JBE	2011	<i>Perceived risk</i> has positive effects on attitude of individuals towards digital piracy
<i>Result demonstrability</i>	Liao et al.: IJIM	1999	<i>Results demonstrability</i> is significant associated with attitude
	Andrews & Bianchi: JBR	2013	<i>Result demonstrability</i> affect consumers' attitudes
<i>Complexity</i>	Chou et al.: IJHM	2012	<i>Complexity</i> have positive effects on attitude
	Gironda & Korgaonkar: JMM	2014	<i>Complexity</i> has partially affected attitude towards SNS usage
<i>Affect</i>	Hunsinger & Smith: JCIS	2009	<i>Affect</i> has positive effects on attitudes
<i>Amount of computer usage</i>	Phau & Ng: JBE	2010	<i>Amount of computer usage</i> has positive effects on attitudes towards software piracy
<i>Cognition</i>	Hunsinger & Smith: JCIS	2009	<i>Cognition</i> has positive effects on attitudes
<i>Collectivism</i>	Phau et al.: JMM	2014	<i>Collectivism</i> has positive effects on attitudes towards 'illegal' downloading
<i>Concentration</i>	Lee & Chen: JCIS	2010	<i>Concentration</i> has positive effects on consumers' attitudes
<i>Consumption saliency</i>	Kidwell & Turrisi: JEP	2004	<i>Consumption saliency</i> has positive effects on students' attitude
<i>Entrepreneurship education</i>	Rauch & Hulsink: AMLE	2015	<i>Entrepreneurship education</i> positively affects students' attitudes
<i>Environmental awareness</i>	Han & Kim: IJHM	2010	<i>Environmental Awareness</i> positively affects intention to choose green hotel
<i>Environmental concerns</i>	Kim & Han: JST	2010	<i>Environmental concerns</i> positively affects attitudes towards eco-friendly behaviours
<i>Environmental protection</i>	Lee et al.: IJCHM	2015	<i>Environmental protection</i> has positive effects on consumers' attitudes
<i>Expected values</i>	Krueger et al.: JBV	2000	<i>Expected values</i> positively affects managers' attitudes
<i>Facilitating conditions</i>	Phau et al.: JMM	2014	<i>Facilitating conditions</i> has positive effects on attitudes towards 'illegal' downloading
<i>Habit</i>	Yoon: JBE	2011	<i>Habit</i> has positive effects on attitude of individuals towards digital piracy
<i>Health</i>	Lee et al.: IJCHM	2015	<i>Health</i> has positive effects on consumers' attitudes
<i>Hedonic beliefs</i>	Pookulangara et al.: JRSC	2011	<i>Hedonic beliefs</i> has positive effects on consumers' attitudes
<i>Individual values</i>	Loureiro & de Araújo: JRSC	2014	<i>Individual values</i> has positive effects on consumers' attitudes
<i>Integrity</i>	Phau & Ng: JBE	2010	<i>Integrity</i> has positive effects on attitudes towards software piracy
<i>Learning goal orientation</i>	Hurtz & Williams: JAP	2009	<i>Learning goal orientation</i> has positive effects on attitudes
<i>Observability</i>	Chou et al.: IJHM	2012	<i>Observability</i> has positive effects on attitude
<i>Perceived consequences</i>	Khalifa & She: JCIS	2008	<i>Perceived consequences</i> has positive effects on attitudes towards commerce adoption
<i>Perceived importance of internet misuse avoidance</i>	Liao et al.: JCIS	2009	<i>Perceived importance of internet misuse avoidance</i> has positive effects on attitudes towards avoiding internet misuse
<i>Perceived knowledge</i>	Kidwell & Turrisi: JEP	2004	<i>Perceived knowledge</i> has positive effects on students' attitude
<i>Perceived system quality</i>	Yun & Lee: TFSC	2015	<i>Perceived system quality</i> has positive effects on consumers' attitudes

Variables*	Author: Publication	Year	Findings
<i>Perceived volition</i>	Leroy et al.: JSBM	2015	<i>Perceived volition</i> affects entrepreneurs' attitudes towards liquidate or sell when leaving
<i>Personal moral obligation</i>	Phau et al.: JMM	2014	<i>Personal moral obligation</i> has positive effects on attitudes towards 'illegal' downloading
<i>Purchasing barriers</i>	Kidwell & Turrisi: JEP	2004	<i>Purchasing barriers</i> has positive effects on students' attitude
<i>Reactions to past activities</i>	Hurtz & Williams: JAP	2009	<i>Reactions to past activities</i> has positive effects on attitudes
<i>Reactions to prior participation</i>	Hurtz & Williams: JAP	2009	<i>Reactions to prior participation</i> has positive effects on attitudes
<i>Salient beliefs</i>	Kolvereid & Isaksen: JBV	2006	<i>Salient Beliefs</i> (autonomy, authority, self-realisation and economic opportunity) affect attitudes
<i>Satisfaction with the organisation</i>	Guo et al.: JBR	2009	<i>Satisfaction with the organisation</i> affects consumers' attitudes
<i>Social factor</i>	Phau et al.: JMM	2014	<i>Social factor</i> has positive effects on attitudes towards 'illegal' downloading
<i>Social values</i>	Loureiro & de Araújo: JRSC	2014	<i>Social values</i> has positive effects on consumers' attitudes
<i>Structured spending</i>	Kidwell & Turrisi: JEP	2004	<i>Structured spending</i> has positive effects on students' attitude
<i>Telepresence</i>	Lee & Chen: JCIS	2010	<i>Telepresence</i> has positive effects on consumers' attitudes
<i>Undesired effort</i>	Kidwell & Turrisi: JEP	2004	<i>Undesired effort</i> has positive effects on students' attitude
<i>Utilitarian beliefs</i>	Pookulangara et al.: JRSC	2011	<i>Utilitarian beliefs</i> has positive effects on consumers' attitudes
<i>Value consciousness</i>	Phau & Ng: JBE	2010	<i>Value consciousness</i> has positive effects on attitudes towards software piracy

*Subjects are asked to indicate that whether they felt the behaviour in the scenario is *good-bad*, *beneficial-harmful*, *favourable-unfavourable*, *positive-negative*, *wise-foolish*, *useful-useless*, *unpleasant-pleasant*, *joyless-joyful*, *unattractive-attractive*, etc. on a 5- or 7-point Likert-type scale.

Another frequently examined factor is *perceived usefulness*. Studies examine how individuals' perceptions of the usefulness of ITs/ISs can improve their work performance. Similarly, the variable *perceived ease of use* serves as an indicator for measuring the degree to which a user accepts certain technologies. For instance, studies such as Pavlou and Fygenson (2006), Lee (2009), Lee and Chen (2010) and Yang (2013) use this variable as a behavioural belief that underpins *attitudes towards behaviour*, and explore the resultant positive relationships. Other variables, such as *habit* and *facilitation condition*, are also examined for use in decomposing attitudes towards different types of behaviour. Phau, Teah, and Lwin (2014) explore their use in decomposing attitudes towards ethical questionnaire behaviour (i.e., illegal downloads). The 51 relationships between the variables in Table 3 and *attitudes towards behaviour* are examined under various contexts.

To measure *attitudes towards behaviour*, subjects are normally asked to express their attitudes towards the behaviour created in various scenarios. The statements used to measure *behaviour* in the papers selected for this review are similar. For example, the subjects are asked to indicate whether they feel the behaviour in the scenario is *good–bad*, *beneficial–harmful*, *favourable–unfavourable*, *positive–negative*, *wise–foolish*, *useful–useless*, *unpleasant–pleasant*, *joyless–joyful* or *unattractive–attractive* using a 5- or 7-point Likert-type scale.

2.4.3 Subjective norms

Seventeen variables (Table 4) are identified as determinants for *subjective norms* in this review. *Normative belief*, as the variable most frequently used (appeared in five papers), refers to “the social pressure from the important referent individuals or groups who approve or disapprove of an individual’s behavior or action” (Kim, Ham et al., 2013; p. 205). *Motivation to comply* is another important factor examined in studies. Kim, Ham et al. (2013) suggest that this factor refers to the degree of a person’s incentives to follow the pressure from referent individuals or groups. It is used as a surrogate for *normative beliefs* (e.g., Kim, Ham et al., 2013) because it also pertains to an individual’s tendency to comply with another’s expectations (Burnkrant & Cousineau, 1975). Meanwhile, many studies treat *motivation to comply* as a different variable from *normative beliefs* (e.g., Wu et al., 2015). Pookulangara, Hawley, and Xiao (2011) indicate that *motivation to comply* is a factor that underpins the *subjective norms*. For example, the more an individual is motivated to perform a behaviour, the more social pressure they perceive. The results from the business studies also support this conclusion.

Table 4: Variables identified as determinants for *subjective norms*

Variables¹	Author: Publication	Year	Findings
<i>Normative beliefs</i>	Liao et al.: IJIM	1999	<i>Normative beliefs</i> (image and critical mass) positively affects SN ²
	Henle et al.: JBE	2010	<i>Normative beliefs</i> (Referents' Preferences) positively affects SN
	Kim & Han: JST	2010	<i>Normative beliefs</i> positively affects SN
	Pookulangara et al.: JRSC	2011	<i>Normative beliefs</i> positively affects SN
	Kim, Ham et al.: IJHM	2013	<i>Normative beliefs</i> positively affects SN
	Wu et al.: JBR	2015	<i>Normative beliefs</i> positively affects SN
<i>Motivation to comply</i>	Henle et al.: JBE	2010	<i>Motivation to comply</i> positively affects SN
	Kim, Ham et al.: IJHM	2013	<i>Motivation to comply</i> positively affects SN
	Wu et al.: JBR	2015	<i>Motivation to comply</i> positively affects SN
<i>Trust</i>	Lee: DSS	2009	<i>Trust</i> positively affects SN
	Yun & Lee: TFSC	2015	<i>Social trust</i> positively affects SN
	Lee et al.: IJCHM	2015	<i>Trust</i> cannot affect SN
<i>Support</i>	Hurtz & Williams: JAP	2009	<i>Perceived support</i> positively affects SN
	Yun & Lee: TFSC	2015	<i>Social support</i> positively affects SN
<i>Environmental protection</i>	Lee et al.: IJCHM	2015	<i>Environmental protection appeal</i> positively affects SN
<i>External influence</i>	Mäntymäki et al.: IJIM	2014	<i>External influence</i> positively affects SN
<i>Individual values</i>	Loureiro & de Araújo: JRSC	2014	<i>Individual values</i> positively affects SN
<i>Interpersonal influence</i>	Mäntymäki et al.: IJIM	2014	<i>Interpersonal influence</i> positively affects SN
<i>Justice affects</i>	Yoon: JBE	2011	<i>Justice affects</i> positively affects SN
<i>Moral obligation</i>	Yoon: JBE	2011	<i>Moral obligation</i> positively affects SN
<i>Normative influences</i>	Gironda & Korgaonkar: JMM	2014	<i>Normative influences</i> positively affects SN
<i>Number of employees</i>	Leroy et al.: JSBM	2015	<i>Number of employees</i> affects entrepreneurs' SN
<i>Multigenerational family firm</i>	Leroy et al.: JSBM	2015	<i>Multigenerational family firm</i> affects entrepreneurs' SN
<i>Punishment Certainty</i>	Liao et al.: JCIS	2009	<i>Punishment certainty</i> positively affects SN
<i>Sensory appeal</i>	Lee et al.: IJCHM	2015	<i>Sensory appeal</i> positively affects SN
<i>Social norm</i>	Wu et al.: JBR	2015	<i>Social norm</i> positively affects SN
<i>Social values</i>	Loureiro & de Araújo: JRSC	2014	<i>Social values</i> positively affects SN

¹ A Likert scale with *strongly disagree* to *strongly agree* is the most frequently used to measure respondents /participants' beliefs about the importance of expectation from others.

² *Subjective norms* (SN)

Other variables in Table 4 also appear in studies and are associated with *subjective norms* in different contexts. For instance, Hurtz and Williams (2009) explore the associations between *perceived support* and *subjective norms* and find that the former can influence individuals' perceived opinions among work and non-work referents. In summary, the variables shown Table 4 are clearly associated with *subjective norms*.

To measure *subjective norms*, questions that address the following sentiment, “most people who are important to/influence me think that I should ...” are widely used (e.g., Kim, Ham et al., 2013; Chen & Tung, 2014; Hajli, Shanmugam, Powell, & Love, 2015) to examine how others' expectations influence participants' intentions. Similar questions include “people whose opinions are valuable to me think/prefer that I (perform the target behaviour)” and “people whose opinions I value prefer that I (perform the target behaviour).” Another approach to measuring participants' perceived *subjective norms* is to examine their perceptions of others' behaviour. For example, a question such as “most people who are important to me will (perform the target behaviour)” is also applied in many studies (e.g., O'Connor, Ferguson, & O'Connor, 2005; Farah & Newman, 2010; Gironde & Korgaonkar, 2014; Mäntymäki, Merikivi, Verhagen, Feldberg, & Rajala, 2014). A Likert scale ranging from *strongly disagree* to *strongly agree* is the most frequently used tool to measure respondents/participants' beliefs about the importance of others' expectations.

2.4.4 Perceived behavioural control

As Table 5 shows, in business research exploring the relationships between 21 factors and *perceived behavioural control*, *self-efficacy*, *facilitation* and *control belief* are the most frequent variables. *Self-efficacy* appears in six papers (e.g., Ajzen, 1991; Ajzen, 2002; Conner & Armitage, 1998). Bandura (1998) defines *self-efficacy* as “beliefs in one's capabilities to organize and execute the courses of action required to produce given levels of attainments” (p. 624). The main concern is controlling the behaviour, which is similar to the definition of *perceived behavioural control*. Ajzen (2002) suggests that *perceived behavioural control* denotes the degree of control over performance, while *self-efficacy* reflects the outcome of behaviour. In many studies (e.g., Arnold et al., 2006; Carr & Sequeira, 2007), self-efficacy is a surrogate for

perceived behavioural control. However, other studies (e.g., Krueger, Reilly, & Carsrud, 2000; Pookulangara et al., 2011; Mäntymäki et al., 2014) differentiate between *self-efficacy* and *perceived behavioural control*, considering the former to be an antecedent that affects the latter. The results of this review show that *self-efficacy* is positively associated with *perceived behavioural control*.

Table 5: Variables identified as determinants for perceived behavioural control

Variables¹	Author: Publication	Year	Findings
<i>Self-efficacy</i>	Kulviwat et al.: JBR	2009	<i>Self-efficacy</i> positively affects the PBC ²
	Lee & Chen: JCIS	2010	<i>Self-efficacy</i> positively affects the PBC
	Pookulangara et al.: JRSC	2011	<i>Self-efficacy</i> positively affects the PBC
	Girona & Korgaonkar: JMM	2014	<i>Self-efficacy</i> positively affects the PBC
	Mäntymäki et al.: IJIM	2014	<i>Self-efficacy</i> positively affects the PBC
	Wu et al.: JBR	2015	<i>Self-efficacy</i> positively affects the PBC
<i>Facilitation</i>	Pookulangara et al.: JRSC	2011	<i>Facilitation conditions</i> (information, product type, time) positively affects the PBC
	Girona & Korgaonkar: JMM	2014	<i>Facilitation conditions</i> positively affects the PBC
	Wu et al.: JBR	2015	<i>Facilitation</i> positively affects the PBC
	Yun & Lee: TFSC	2015	<i>Facilitating technical condition</i> positively affects the PBC
<i>Control Belief</i>	Henle et al.: JBE	2010	<i>Control Belief</i> (Strength of Control Belief, Power of Control Belief) positively affects the PBC
	Kim & Han: JST	2010	<i>Control Belief</i> positively affects the PBC
	Kim, Ham et al.: IJHM	2013	<i>Control Belief</i> positively affects the PBC
<i>Trust</i>	Pavlou & Fygenson: MISQ	2006	<i>Trust</i> positively affects the PBC
	Lee: DSS	2009	<i>Trust</i> positively affects the PBC
	Lee et al.: IJCHM	2015	<i>Trust</i> positively affects the PBC
<i>Perceived ease of use</i>	Pavlou & Fygenson: MISQ	2006	<i>Perceived ease of use</i> positively affects the PBC
	Mäntymäki et al.: IJIM	2014	<i>Perceived ease of use</i> positively affects the PBC
<i>Career exploration</i>	Zikic & Saks: JVB	2009	<i>Career exploration</i> positively affects the PBC
<i>Career resources</i>	Zikic & Saks: JVB	2009	<i>Career resources</i> positively affects the PBC
<i>Controllability affect</i>	Lee & Chen: JCIS	2010	<i>Controllability affect</i> positively affects the PBC
<i>Environmental protection</i>	Lee et al.: IJCHM	2015	<i>Environmental protection appeal</i> positively affects the PBC
<i>Entrepreneurial experience</i>	Leroy et al.: JSBM	2015	<i>Entrepreneurial experience</i> affects entrepreneurs' PBC
<i>Management experience</i>	Leroy et al.: JSBM	2015	<i>Management experience</i> affects entrepreneurs' PBC
<i>Individual values</i>	Loureiro & de Araújo: JRSC	2014	<i>Individual values</i> positively affects the PBC

Variables¹	Author: Publication	Year	Findings
<i>Organisational context</i>	Jaime: JBR	2012	<i>Organisational context</i> (external control, internal control) positively affects the PBC
<i>Perceived support</i>	Hurtz & Williams: JAP	2009	<i>Perceived support</i> positively affects the PBC
<i>Planning importance</i>	Croy et al.: JEP	2010	<i>Planning importance</i> positively affects the PBC
<i>Planning preparedness</i>	Croy et al.: JEP	2010	<i>Planning preparedness</i> positively affects the PBC
<i>Product characteristics</i>	Pavlou & Fygenon: MISQ	2006	<i>Product characteristics</i> (product diagnosticity and product value) positively affects the PBC
<i>Sensory appeal</i>	Lee et al.: IJCHM	2015	<i>Sensory appeal</i> positively affects the PBC
<i>Social values</i>	Loureiro & de Araújo: JRSC	2014	<i>Social values</i> positively affects the PBC
<i>Technological characteristics</i>	Pavlou & Fygenon: MISQ	2006	<i>Technological characteristics</i> (download delay, Website navigability, and getting information skill) positively affects the PBC
<i>Training</i>	Zikic & Saks: JVB	2009	<i>Training resources</i> positively affects the PBC

¹ A Likert scale with *no control* to *completely control* is the most frequently used to measure respondents/participants' agreement on their ability to perform the target behaviour.

² *Perceived behavioural control (PBC)*

Control beliefs refer to individuals' perceptions of the skills, resources and opportunities they possess to perform behaviour. Ajzen (1991) argues that the more resources and opportunities individuals perceive themselves as possessing, the greater their ability to control their behaviour. The results of Henle, Reeve, and Pitts (2010), Kim and Han (2010) and Kim, Ham et al. (2013) support this assertion. Kim, Ham et al. (2013) further categorise control factors into internal (related to knowledge and skills) and external (related to environmental aspects such as information, time, money, etc.) factors. Liao et al. (1999) identify external control factors as *facilitation conditions* that reflect the resources available to an individual in completing behaviour, suggesting a positive association with *perceived behavioural control*. This result is also supported by four of the studies presented in Table 5 (Pookulangara et al., 2011; Girona & Korgaonkar, 2014; Wu et al., 2015; Yun & Lee, 2015). Most of the other variables in Table 5 evaluate the internal and external resources an individual has to perform the target behaviour, which are associated with the behaviour.

The items measuring *perceived behavioural control* focus on three dimensions. The first typology of these items focuses on the participants' evaluations of their ability to perform the target behaviour. For instance, the item "Performing the behaviour is up to me" appears in some of the studies (e.g., Oren, Caduri, & Tziner, 2013; Wu, Lai, Tong, & Tao, 2013; Chen & Tung, 2014; Han & Hwang, 2014). These items highlight

whether the respondents find it easy or difficult to perform the behaviour. The second measurement dimension examines the degree to which the participants' control their behaviour. For example, Cheng, Lam, and Hsu (2005) require their participants to respond to the question, "How much control do you feel over your action?" (p. 482). Similarly, Elliott and Armitage (2009) use the item "How confident are you that you will be able to keep within 30 mph speed limits when driving over the next month" (p. 118) to examine their participants' *perceived behavioural control*. Compared with other items, the third type used to measure *perceived behavioural control* focuses on the participants' evaluation of the resources available to them (time, knowledge, information, money, etc.) for performing the target behaviour. For instance, Chen and Tung (2014) use the item, "I have resources, time and opportunities to stay at a green hotel when travelling" to examine their participants' evaluation of their external resources for selecting a green hotel.

A Likert scale ranging from *no control* to *complete control* is the most frequently used to measure respondents/participants' agreement on their ability to perform the target behaviour.

2.4.5 Intention

Intention and *behaviour* are two of the dependent variables in the TPB conceptual framework, and the former's antecedent also predicts that of the latter (Leonard et al., 2004). Thus, most studies (e.g., Cordano & Frieze, 2000; Nasco et al., 2008; Kulviwat, Bruner, & Al-Shuridah, 2009) examine the factors that influence *intention* without directly measuring *behaviour*, because the former is a surrogate for the latter (Michaelidou & Hassan, 2014). Research notes various types of *intention* to perform a specific behaviour within the business context, and categorising them can reveal the main trends of behavioural research in that context to provide future direction for TPB application research. The results of the behavioural intentions studies are shown in Table 6.

Table 6: Review of *intention* in prior studies

<i>Intention</i>	Year	Author: Publication	Research Subject
Intention to purchase	2000	Shaw et al.: JMM	Consumer
	2002	Bamberg: JEP	Student
	2002	Cook et al.: JEP	Customer
	2004	Keen et al.: JBR	Consumer
	2004	Hansen et al.: IJIM	Consumer
	2006	Pavlou & Fygenson: MISQ	Consumer
	2007	O'Fallon et al.: IJHM	Individual
	2009	Lee: DSS	Investor
	2009	De Cannière et al. JBR	Consumer
	2010	Lee & Chen: JCIS	Consumer
	2011	Rong-Da & Lim: IJHM	Consumer
	2012	Yang: JRSC	Consumer
	2013	Andrews & Bianchi: JBR	Consumer
	2014	Cheng & Huang: IJIM	Consumer
	2014	Jebarajakirthy & Lobo: JRSC	Youth
	2015	Lee et al.: IJCHM	Consumer
	Intention to perform environmental behaviour	1995	Lynne et al.: JEP
2000		Cordano & Irene.: AMJ	Environmental manager
2000		Flannery et al.: AMJ	Manager
2010		Brown et al.: JST	Visitor
2010		Cordano et al.: JBE	Manager
2011		Litvine & Wüstenhagen: EE	Individual
2011		Lokhorst et al.: AP	Farmer
2012		Chou et al.: IJHM	Restaurant
2012		Jaime: JBR	Manager
2012		Serenari et al.: JST	Individual
2013		Läpple & Kelley: EE	Farmer
2013		Onwezen et al.: JEP	Individual
2014		Swaim et al.: JBE	Student
Intention to start a new business	2000	Han & Yoon: IJHM	Consumer
	2000	Krueger et al.: JBV	Student
	2006	Kolvereid & Isaksen: JBV	Individual
	2007	Carr and Sequeira: JBR	Individual
	2012	Goethner et al.: JEP	Scientist
	2012	Obschonka et al.: JVB	Scientist
	2012	Verheul et al.: JEP	Individual
	2014	Harms et al.: TFSC	Manager
	2015	Farah	Individual
	2015	Rauch & Hulsink: AMLE	Student
2015	Sieger & Monsen	Student	
2015	Zhang et al.: ERJ	Student	

<i>Intention</i>	Year	Author: Publication	Research Subject
Intention to perform ethical questionable behaviour	2002	Fukukawa: JBE	Consumer
	2005	Buchan: JBE	Public accountants
	2008	Kulik et al.: JBE	Manager
	2005	Carpenter & Reimers: JBE	Manager
	2010	Cohen et al.: JBE	Manager
	2010	Fukukawa & Ennew: JBE	Individual
	2011	Rabl: JBE	Manager
	2012	Sardžoska & Tang: JBE	Manager
	2014	Baden: AMLE	Student
	2015	Tan et al.: ATBMR	Accountants
Intention to search job	2003	Millar et al.: JVB	Individual
	2004	Van Hoof et al.: JVB	Individual
	2005	Van Hooft et al.: JVB	Individual
	2005	Wanberg et al.: JAP	Individual
	2006	Song et al.: JVB	Individual
	2008	Creed et al.: JVB	Student
	2009	Zikic & Saks: JVB	Individual
	2015	Guerrero & Hatala: CDI	Members of a practice firm
Intention to adopt virtual commerce	1999	Liao et al.: IJIM	Individual
	2008	Khalifa & She: JCIS	Individual
	2008	Nasco et al.: JBR	Managers in small-to-medium-sized enterprises
	2010	Alsajjan & Dennis: JBR	Consumer
	2011	Grandón et al.: JBR	Manager
	2012	Khalifa et al.: JCIS	Consumer
Intention to use information system	1991	Mathieson: ISR	Individual
	1995	Taylor & Todd: ISR	Student
	1997	Harrison et al.: ISR	Small business executives
	2009	Heinze & Hu: EJIS	College student
	2009	Huh et al.: IJHM	Employee
Intention to follow or violate speed limit	1992	Parker et al.: JAP	Driver
	2003	Elliott et al.: JAP	Driver
	2007	Conner et al.: BJP	Driver
	2009	Elliott & Armitage: BJP	Driver
Intention for illegally download	1998	Chang: JBE	Student
	2010	Phau & Ng: JBE	Consumer
	2011	Yoon: JBE	Individual
	2014	Phau et al.: JMM	Consumer
Intention to gamble	2012	Wu & Tang: JGS	Chinese college student
	2013	Lee: JGS	Undergraduate students'
	2013	Wu et al.: JGS	Chinese individual
	2014	Lee et al.: JGS	Gambler
Intention to participate in online community	2013	Al-Debei et al.: DSS	Student

<i>Intention</i>	<i>Year</i>	<i>Author: Publication</i>	<i>Research Subject</i>
	2014	Gironde & Korgaonkar: JMM	Consumer
	2014	Mäntymäki et al.: IJIM	Teenagers
	2015	Hajli et al.: TFSC	User
Intention to manage money	2004	Kidwell & Turrisi: JEP	Student
	2010	Croy et al.: JEP	Individual
	2012	Shim et al.: JEP	Young adult
Intention to select business ethics course	1994	Randall: JBE	Student
	2014	Cheng & Chu: JBE	Student
	2015	Cheng: JBE	University lecturer
Behavioural intention	1998	Notani: JCP	Individual
	2014	Michaelidou & Hassan: JMM	Individual
Intentions to follow parents' recommendation for jobs	2007	Gibson et al.: JVB	Youth
Intention to select a job	2012	Bagley et al.: AH	Student and professionals
	2013	Dalton et al.: AH	Student and professionals
	2014	Oren et al.: JVB	Youth
Intention to revisit a green hotel	2010	Han & Kim.: IJHM	Customer
	2014	Chen & Tung: IJHM	Consumer
Intention to donate blood	2003	Kidwell & Jewell: JCP	Individual
	2009	Lemmens et al.: BJP	Non-donor
Intention to avoid internet misuse	2009	Liao et al.: JCIS	Individual
	2015	Chu et al.: JBE	Employee
Intention to report health professionals responsible for the situation	1991	Randall & Gibson: JBE	Nurse
Intention to engage in recreational activities	1992	Ajzen & Drive: JCP	Individual
Intention to apply for shares in regional electricity companies	1993	East: JEP	Individual
Intentions to use unstructured and structured interview techniques	2002	Van der Zee et al.: JAP	HR manager
Intentions to perform the protection of information privacy	2003	Hsu & Kuo: JBE	Professional
Intention to communicate about drinking	2004	Neuwirth & Frederick: CR	Individual
Intentions to engage in different types of dissatisfaction responses	2005	Cheng et al.: IJHM	Customer
Intentions to use hormonal male contraception	2005	O'Connor et al.: BJP	Individual
Intentions to work for the UK's National Health Service (NHS)	2006	Arnold et al.: JVB	Nurse, physiotherapist or radiographer
Intention to adhere to the prescribed strength and conditioning training	2008	Anderson & Lavalley: AP	Athlete
Intention to perform academic behaviour	2008	Armitage: BJP	Children
Intention to complain	2008	Cheng & Lam: IJHM	Chinese consumer
Intention to seek samples	2008	Prendergast et al.: EJM	Consumer
intention to perform health-related behaviour	2008	Skår et al.: AP	Student
Intention for sustainable consumption	2008	Vermeir & Verbeke: EE	Higher educated youth
Intention for household energy saving	2009	Abrahamse & Steg: JEP	Consumer

<i>Intention</i>	Year	Author: Publication	Research Subject
Intention to practice green computing	2009	Chow & Chen: JCIS	IT user
Intention to use IT certification in the hiring process	2009	Hunsinger & Smith: JCIS	Hiring personnel
intention to participate in employee development activities	2009	Hurtz & Williams: JAP	Employee
Intention for organic farming	2009	Kaufmann et al.: EE	Farmer
Intention to adopt high tech innovation	2009	Kulviwat et al.: JBR	Consumer
intention in a relational service context	2009	Guo et al.: JBR	Customer
Intention for safe sex	2010	Armitage & Talibudeen: BJP	Young adults
Intention to boycott	2010	Farah & Newman: JBR	Consumer
Intention to pay conventional-hotel prices	2010	Kim & Han: JST	Customer
Intention for time theft	2010	Henle et al.: JBE	Employee
Intention to switch channels	2011	Pookulangara et al.: JRSC	Consumer
Intention to retrofit tractors	2011	Sorensen et al.: AJPH	Farmer
Intentions to participate in congregate meal programs	2012	Lee & Gould: IJHM	Community-dwelling older adults
Intention to use an electric car	2012	Moons & De Pelsmacker: JMM	Driver
Intention for adopting sustainability strategies and operational practices	2012	Thomas & Lamm: JBE	Manager
Intentions to select an eco-friendly restaurant	2013	Kim, Njite et al.: IJHM	Consumer
Intention to read menu labels	2013	Kim, Ham et al.: IJHM	Customer
Intention to use mobile applications	2013	Yang: JCIS	Consumer
Intention to seek interpersonal helps	2014	Chan: AP	Individual
Intentions to play golf on traditional golf courses	2014	Han & Hwang: IJCHM	Golfer
Intentions to recommend and pay more for luxury clothing	2014	Loureiro & de Araújo: JRSC	Individual
Intention to sell or liquidate firms when leaving	2015	Leroy et al.: JSBM	Entrepreneur
Intention to grow biofuel crops	2015	Peluso: BEAER	Farmer
Intention to drink	2015	Previte et al.: IJCS	Young adult
Intention to engage in medical tourism	2015	Ramamonjarivelo et al.: HMQ	Student
Intention to discipline those employees who favoured a family member when hiring	2015	Wated & Sanchez: JBE	Manager
Intention to accept new assessment model	2015	Wu et al.: JBR	Government employee
Intention of electric library adoption	2015	Xiao et al.: JCIS	User
Intentions to use renewable energy systems	2015	Yun & Lee: TFSC	Consumer

The results shown in Table 6 reveal that *intention to purchase* attracts the most interest from researchers. For example, numerous studies (e.g., Keen, Wetzels, De Ruyter, & Feinberg, 2004; Lee & Chen, 2010; Yang, 2012; Andrews & Bianchi, 2013)

investigate consumers' intentions to purchase online or by mobile phone. Intentions related to environmental issues is another topic favoured by researchers. For instance, Brown, Ham and Hughes (2010) build a model to explain visitors' intention to pick up litter and Swaim, Maloni, Napshin, and Henley (2014) focus on intentions to achieve environmental sustainability. Other important intention categories attracting researchers include the intention to start a new business, perform ethically questionable behaviour (e.g., corruption), search for a job, etc. *Consumers* (including *customers*) are the most typical subjects for research. *Managers* also become the subjects of studies. Researchers are particularly concerned with managers' moral intentions when faced with an ethical dilemma. For example, Carpenter and Reimers (2005) examine managers' intentions to engage in fraudulent financial reporting. Similarly, Cohen, Ding, Lesage & Stolowy (2010) study managers' ethical intentions to commit fraud. This issue will be continuously studied within the TPB framework in the future, as the TPB is a useful tool in predicting unethical behaviour (Leonard et al., 2004).

To measure subjects' intentions to perform a certain behaviour, scenarios or vignettes are commonly used instruments (see Parker, Manstead, Stradling, Reason, & Baxter, 1992; Flannery & May, 2000; Hsu & Kuo, 2003; Carpenter & Reimers, 2005; Buchan, 2005; Bagley, Dalton & Ortegren, 2012; Dalton, Buchheit, & McMillan, 2013; Swaim et al., 2014). For instance, Swaim et al. (2014) create scenarios that require their participants to make decisions as if they are CEOs implementing a new recycling program. The scenario in Bagley et al. (2012) requires the respondents to consider whether they want to work in Big 4 or non-Big 4 accounting firms. Vignettes are frequently used in business ethics research, as research subjects tend to be under less-than-ideal conditions (Buchan, 2005). The papers published in the *Journal of Business Ethics* tend to use scenarios to describe the ethical dilemmas faced by participants. For instance, the scenario in Hsu and Kuo (2003) requires the respondents to make a decision about whether to install a computer-based monitoring system. Nevertheless, such behaviour can violate personal information privacy. Buchan (2005) also uses scenarios to describe the ethical dilemmas faced by public accountants. Similarly, Carpenter and Reimers (2005) use a scenario in which their participants are placed in the role of decision maker regarding whether to defer recording expenses. Respondents and participants are required to record their intentions regarding certain actions after reading these scenarios and vignettes.

The statements and questions most commonly used to measure *intention* in the papers reviewed include “I plan to ...”, “I will try to...”, “I expect to”, “How likely are you to ...”, etc., and are measured on a 5-point Likert scale (see Laple & Kelley, 2013; Wu et al., 2013; Han & Hwang, 2014) or 7-point Likert scale (see Chang, 1998; Han & Yoon, 2015). Dawes (2008) asserts that there are no significant differences among different types of scales. Sets of opposite words, such as *unlikely–likely*, *strongly disagree–agree*, *false–true* and *unimportant–important* are often used to reflect respondents’ intentions.

2.4.6 Results of literature review on extending the TPB

Ajzen (1991) notes that the TPB is an open model, and new variables can be added if they are related to *intention*. Thus, business studies explore new antecedents that influence *intention* and extend the TPB within various contexts and situations. This section reviews these factors, and the empirical findings are provided in Table 7.

Table 7: New variables identified as determinants for *intention*

New variables	Author: Publication	Year	Findings	
<i>Past behaviour</i>	Cordano & Irene.: AMJ	2000	<i>Past behaviour</i> positively affects intention for source reduction activity	
	Millar et al.: JVB	2003	<i>Past behaviour</i> positively affects intention to search for career information	
	Kidwell & Turrisi: JEP	2004	<i>Past behaviour</i> positively affects intention to moderate budget	
	Cheng et al.: IJHM	2005	The influence of <i>Past behaviour</i> on intention is mediated by the TPB variables	
	Conner et al.: BJP	2007	<i>Past behaviour</i> positively affects intention to break speed limit.	
	Skår et al.: AP	2008	<i>Past behaviour</i> positively affects intention	
	De Cannière et al.: JBR	2009	<i>Past behaviour</i> (frequency, regency, monetary value) positively affects intention to buy	
	Han & Kim: IJHM	2010	<i>Frequency of past behaviour</i> positively affects intention to choose green hotel	
	Lee & Gould: IJHM	2012	<i>Past behaviour</i> positively affects intention for participation	
	Serenari et al.: JST	2012	<i>Past behaviour</i> positively affects intention to perform pro-environmental behaviour.	
	Kidwell & Jewell: JCP	2013	<i>Past behaviour</i> positively affects intention to perform health-related behaviour.	
	<i>Moral obligation</i>	Randall & Gibson: JBE	1991	<i>Moral obligation</i> positively affects ethical decision-making in the medical profession
		Flannery et al.: AMJ	2000	<i>Personal moral obligation</i> cannot affect ethical environmental decision
		Shaw et al.: JMM	2000	<i>Ethical obligation</i> positively affects intention to subscribe consumer magazines
Cohen et al.: JBE		2010	<i>Moral obligation</i> positively affects intention to perform unethical behaviour	
Yoon: JBE		2011	<i>Moral obligation</i> positively affects intention to commit digital piracy	
Chen & Tung: IJHM		2014	<i>Perceived moral obligation</i> positively affects intention to visit green hotels	
Phau et al.: JMM		2014	<i>Personal moral obligation</i> positively affects intention of illegal downloading	
<i>Experience</i>	East: JEP	1993	<i>Past experience</i> positively affects intention to make Investment decisions	
	Carr and Sequeira: JBR	2007	<i>Work experience</i> is positively associated with intention to start a business	
	Creed et al.: JVB	2008	<i>Job-searching experience</i> positively affects job-searching intention	
	Rong-Da & Lim: IJHM	2011	<i>Online experience</i> positively affects intention to purchase specialty food online	
	Loureiro & de Araújo: JRSC	2014	<i>Past experience</i> positively affects intention to recommend and pay more	
<i>Self-identity</i>	Shaw et al.: JMM	2000	<i>Self-identity</i> positively affects intention to subscribe consumer magazines	
	Cook et al.: JEP	2002	<i>Self-identity</i> positively affects intention to purchase GM food	
	Lokhorst et al.: AP	2011	<i>Self-identity</i> positively affects intention to perform conservation practices	
	Jebarajakirthy & Lobo: JRSC	2014	<i>Self-identity</i> positively affects purchase intention	
	Cheng & Chu: JBE	2014	<i>Self-identity</i> positively affects intention to take a business ethical course	
<i>Norms</i>	Conner et al.: BJP	2007	<i>Moral norms</i> positively affects intention to break speed limit.	

New variables	Author: Publication	Year	Findings
	Lemmens et al.: BJP	2009	<i>Moral norms</i> positively affects intention for blood donation.
	Peluso: BEAER	2015	<i>Moral norms</i> negatively affects intention to grow biofuel crops
	Lokhorst et al.: AP	2011	<i>Personal norms</i> cannot affect intention to perform conservation practices
<i>Perceived usefulness</i>	Lee: DSS	2009	<i>Perceived usefulness</i> positively affects intention to adopt online trading
	Alsajjan & Dennis: JBR	2010	<i>Perceived usefulness</i> positively affects intention to accept internet bank
	Yang: JCIS	2013	<i>Perceived usefulness</i> positively affects intention for mobile application
<i>Positive affect</i>	Kidwell & Turrisi: JEP	2004	<i>Positive affect</i> positively affects intention to moderate budget
	Armitage: BJP	2008	<i>Positive affect</i> cannot affect academic intention
	Jebarajakirthy & Lobo: JRSC	2014	<i>Positive affect</i> positively affects purchase intention
<i>Anticipated regret</i>	Conner et al.: BJP	2007	<i>Anticipated regret</i> positively affects intention to break speed limit.
	Kim, Njite et al.: IJHM	2013	<i>Anticipated regret</i> positively affects intention to select eco-friendly restaurants
<i>Collectivism</i>	Phau et al.: JMM	2014	<i>Collectivism</i> positively affects intention of illegal downloading
	Wated & Sanchez: JBE	2015	<i>Collectivism</i> positively affects intention in a Latin American context
<i>Demographics</i>	Rong-Da & Lim: IJHM	2011	<i>Age</i> positively affects intention to purchase specialty food online
	Dalton et al.: AH	2013	<i>Gender</i> affects intention to work in tax or audit
<i>Ease of use</i>	Keen et al.: JBR	2004	<i>Ease of use</i> is positively associated with intention for technology usage
	Yang: JCIS	2013	<i>Ease of use</i> is not associated with intention to use mobile application
<i>Environmental concern</i>	Kim & Han: JST	2010	<i>Environmental concern</i> positively affects eco-friendly consumer's intention
	Chen & Tung: IJHM	2014	<i>Environmental concern</i> positively affects intention to visit green hotels
<i>Negative Affect</i>	Kidwell & Turrisi: JEP	2004	<i>Negative affect</i> cannot affect intention to moderate budget
	Armitage: BJP	2008	<i>Negative affect</i> cannot affect academic intention
<i>Perceived benefit</i>	Lee: DSS	2009	<i>Perceived benefit</i> positively affects intention to adopt online trading
<i>Perceived risk</i>	Lee: DSS	2009	<i>Perceived risk</i> positively affects intention to adopt online trading
	Zhang et al.: ERJ	2015	<i>Short-term risk</i> positively affects entrepreneurial intention
	Yoon: JBE	2011	<i>Perceived benefit</i> positively affects intention to commit digital piracy
<i>Perceived unfairness</i>	Fukukawa: JBE	2002	<i>Perceived unfairness</i> positively affects intention
	Fukukawa & Ennew: JBE	2010	<i>Perceived unfairness</i> positively affects intention to perform ethically questionable behaviours
<i>Perceived value</i>	Al-Debei et al.: DSS	2013	<i>Perceived value</i> positively affects intention to use Facebook.
	Hajli et al.: TFSC	2015	<i>Perceived value</i> positively affects intention for continuance participation
<i>Affect</i>	Kidwell & Jewell: JCP	2013	<i>Affect</i> positively affects intention to perform health-related behaviour
<i>Altruism</i>	Lemmens et al.: BJP	2009	<i>Altruism</i> cannot affect intention for blood donation
<i>Anticipated affect</i>	Lemmens et al.: BJP	2009	<i>Anticipated affect</i> positively affects intention for blood donation.
<i>Class enjoyment</i>	Dalton et al.: AH	2013	<i>Class enjoyment</i> affects intention to work in tax or audit

New variables	Author: Publication	Year	Findings
<i>Customer satisfaction</i>	Han & Kim: IJHM	2010	<i>Customer satisfaction</i> positively affects intention to choose green hotel
<i>Desire to commit misuse</i>	Chu et al.: JBE	2015	<i>Desire to commit misuse</i> affects intention to commit IS misuse
<i>Economic hardship</i>	Song et al.: JVB	2006	<i>Economic hardship</i> affects job-searching intention
<i>Entrepreneurial Desire</i>	Jebarajakirthy & Lobo: JRSC	2014	<i>Entrepreneurial Desire</i> positively affects purchase intention
<i>Environmentally conscious behaviours</i>	Kim & Han: JST	2010	<i>Environmentally conscious behaviours</i> positively affects eco-friendly consumer's intention
<i>Extent of relational contact</i>	Cheng & Lam: IJHM	2008	<i>Extent of relational contact</i> cannot affect customer's intention to complain
<i>Facilitating conditions</i>	Phau et al.: JMM	2014	<i>Facilitating conditions</i> cannot affect intention of illegal downloading
<i>Financial planning horizon</i>	Shim et al.: JEP	2012	<i>Financial planning horizon</i> positively affects intention to perform financial behaviour
<i>Food purchase habit</i>	Bamberg: JEP	2002	<i>Food purchase habit</i> positively affects intention to purchase organically produced food
<i>Harmonious passion</i>	Lee et al.: JGS	2014	<i>Harmonious passion</i> positively affects online gamblers' decision-making
<i>Internal Control</i>	Kidwell & Jewell: JCP	2013	<i>Internal Control</i> positively affects intention to perform health-related behaviour.
<i>Knowledge</i>	Lemmens et al.: BJP	2009	<i>Knowledge</i> does not affects intention for blood donation
<i>Obsessive passion</i>	Lee et al.: JGS	2014	<i>Obsessive passion</i> positively affects online gamblers' decision-making
<i>Organisation-based self-esteem</i>	Hsu & Kuo: JBE	2003	<i>Organisation-based self-esteem</i> positively affects intention to protecting personal information
<i>Overall image</i>	Han & Kim.: IJHM	2010	<i>Overall image</i> positively affects intention to choose green hotel
<i>Participation in entrepreneurship</i>	Rauch & Hulsink: AMLE	2015	The influence of <i>Participation in entrepreneurship</i> on behavioural intention is mediated by attitude and <i>perceived behavioural control</i>
<i>Perceived affect associated with the activity</i>	Ajzen & Drive: JCP	1992	<i>Perceived affect associated with the activity</i> positively affects intention to pay
<i>Perceived deindividuation</i>	Hsu & Kuo: JBE	2003	<i>Perceived deindividuation</i> positively affects intention to protecting personal information
<i>Perceived deterrents</i>	Jebarajakirthy & Lobo: JRSC	2014	<i>Perceived deterrents</i> negatively affects purchase intention
<i>Perceptions of majority opinion</i>	Neuwirth & Frederick: CR	2004	<i>Perceptions of majority opinion</i> partially affects intention to drink
<i>Positive emotion</i>	Previte et al.: RJCS	2015	<i>Positive emotion</i> affects intention to drink
<i>Price</i>	Keen et al.: JBR	2004	<i>Price</i> is positively associated with intention for technology usage
<i>Prior family business exposure</i>	Carr and Sequeira: JBR	2007	The influence of <i>Prior family business exposure</i> on BI is mediated by TPB variables
<i>Psychological wellbeing</i>	Zhang et al.: ERJ	2015	<i>Psychological wellbeing</i> negatively affects entrepreneurial intention
<i>Response efficacy</i>	Neuwirth & Frederick: CR	2004	<i>Response efficacy</i> positively affects intention to drink
<i>Service quality</i>	Han & Kim.: IJHM	2010	<i>Service quality</i> positively affects intention to choose green hotel
<i>Social support</i>	Hajli et al.: TFSC	2015	<i>Social support</i> positively affects intention for continuance participation
<i>Stress appraisals</i>	O'Connor et al.: BJP	2005	<i>Stress appraisal</i> positively affects intention to use hormonal male contraception.
<i>Trust beliefs</i>	Alsajjan & Dennis: JBR	2010	<i>Trust beliefs</i> positively affects intention to accept internet bank

The review identifies 50 variables, of which *past behaviour*, *moral obligation*, *experience* and *self-identity* are the factors that receive the most attention from business researchers. *Past behaviour* is explored as a determinant of *intention* in ten of the reviewed studies, and their results show that it positively affects *intention*. Conner and Armitage (1998) indicate that *past behaviour* is the strongest predictor of an individual's later behaviour, as it plays a role in storing information. Ajzen (1991) confirms the influence of *past behaviour* on *intention*, but he argues that the former should be treated as "a reflection of all factors that determine the behavior of interest" (p. 203).

Experience plays the same role as *past behaviour*. East (1993) indicates that an individual's past experience can affect their investment decisions. Other studies (e.g., Carr & Sequeira, 2007; Creed, Doherty, & O'Callaghan, 2008) also support East's (1993) findings. *Experience* allows individuals to search for less information when making decisions. *Moral obligation* is also widely used as an antecedent determining IT ethical intention (Haines & Leonard, 2007). This factor is different from *subjective norms* in that it focuses on personal feelings of guilt or obligation. Ajzen (1991) suggests that the influence of this factor on *intention* would be as important as *attitudes towards behaviour*, *subjective norms* and *perceived behavioural control*. According to the results shown in Table 7, most of the business studies support the relationship between *intention* and *moral obligation*, with the exception of Flannery and May (2000), who find that this factor did not significantly affect individuals' environmental intentions.

Self-identity refers to the extent of an individual's evaluation of whether he or she can fulfil the criteria for any societal role. This factor is widely used as a variable explaining the purchasing intention (e.g., Shaw, Shiu, & Clarke, 2000; Cook et al., 2002). Conner and Armitage (1998) review the studies that integrate *self-identity* with the TPB model and conclude that adding this factor could account for more variance in *intention*. This result is also supported by other studies in business fields (Table 7). Additional variables (Table 7) also help researchers explain intention to perform various types of behaviour, adjusting the TPB model to adapt to different situations.

2.4.7 Results of literature review on the research method and data collection issues

O’Fallon and Butterfield (2005) suggest that research methodologies such as data collection methods, sample selection and characteristics should concern researchers. This section presents and discusses the findings related to the above issues, with the results presented in Table 8.

Table 8: Review of methodology issues in the application of the TPB model

Methodology	Author: Publication	Year	Sample Characteristic	Country/Area
Survey	Mathieson: ISR	1991	Students	US
	Randall & Gibson: JBE	1991	Nurses	US
	Ajzen & Drive: JCP	1992	Students	US
	Parker et al.: JAP	1992	Drivers	UK
	East: JEP	1993	General population	UK
	Randall: JBE	1994	Students	Ireland
	Lynne et al.: JEP	1995	Strawberry growers	US
	Taylor & Todd: ISR	1995	Students	Canada
	Harrison et al.: ISR	1997	Small business	US
	Chang: JBE	1998	Students	Hong Kong
	Notani: JCP	1998	Students	US
	Liao et al.: IJIM	1999	Professionals	Hong Kong
	Cordano & Irene.: AMJ	2000	Managers	US
	Flannery et al.: AMJ	2000	Metal Finishers	US
	Krueger et al.: JBV	2000	Students	US
	Shaw et al.: JMM	2000	Magazine subscribers	UK
	Cook et al.: JEP	2002	General population	New Zealand
	Fukukawa: JBE	2002	Consumers	UK
	Elliott et al.: JAP	2003	Drivers	UK
	Hsu & Kuo: JBE	2003	Professionals	China (Taiwan)
Kidwell & Jewell: JCP	2003	Students	US	
Millar et al.: JVB	2003	School pupils	Ireland	
Hansen et al.: IJIM	2004	Consumers	Denmark and Sweden	
Kidwell & Turrisi: JEP	2004	Students	US	

Methodology	Author: Publication	Year	Sample Characteristic	Country/Area
	Neuwirth & Frederick: CR	2004	Students	US
	Van Hoof et al.: JVB	2004	Employees	Netherlands
	Buchan: JBE	2005	Accountants	US
	Cheng et al.: IJHM	2005	Restaurant diners	China
	Van Hoof et al.: JVB	2005	General population	Netherlands
	Wanberg et al.: JAP	2005	Jobseekers	US
	Arnold et al.: JVB	2006	Professionals	UK
	Kolvereid & Isaksen: JBV	2006	Business founders	Norway
	Pavlou & Fygenon: MISQ	2006	Student and internal consumers	US
	Song et al.: JVB	2006	Jobseekers	China
	Gibson et al.: JVB	2007	Parent–youth pairs	US
	Carr and Sequeira: JBR	2007	General population	US
	O’Fallon et al.: IJHM	2007	General population	European Union
	Anderson & Lavallee: AP	2008	Athletes	UK
	Armitage: BJP	2008	Pupils	UK
	Cheng & Lam: IJHM	2008	Decision maker in restaurant	China
	Creed et al.: JVB	2008	Students	Australia
	Khalifa & She: JCIS	2008	Drivers	Hong Kong
	Prendergast et al.: EJM	2008	General population	Hong Kong
	Skår et al.: AP	2008	Students	UK
	Nasco et al.: JBR	2008	Small business	Chile
	Vermeir & Verbeke: EE	2008	Higher educated young people	Belgium
	Abrahamse & Steg: JEP	2009	customers	Netherlands
	Chow & Chen: JCIS	2009	Students	Hong Kong
	Heinze & Hu: EJIS	2009	Students	UK
	Huh et al.: IJHM	2009	Staff member in hotel	South Korea
	Hunsinger & Smith: JCIS	2009	personnel	US
	Hurtz & Williams: JAP	2009	Staff in organisations	US
	Lee: DSS	2009	General population	China (Taiwan)
	Liao et al.: JCIS	2009	General population	US

Methodology	Author: Publication	Year	Sample Characteristic	Country/Area
	Guo et al.: JBR	2009	Clients of a national credit counselling organisation	US
	De Cannière et al.: JBR	2009	Apparel retailers	Belgium
	Zikic & Saks: JVB	2009	Jobseekers	Canada
	Alsajjan & Dennis: JBR	2010	Students	Saudi Arabia
	Cordano et al.: JBE	2010	winery	US
	Croy et al.: JEP	2010	Retirement savings fund members	Australia
	Farah & Newman: JBR	2010	General population	Southern Lebanon, Beqaa, Greater Beirut, Mount-Lebanon and Northern Lebanon
	Fukukawa & Ennew: JBE	2010	General population	UK
	Han & Kim.: IJHM	2010	Hotel customers	US
	Henle et al.: JBE	2010	Students	US
	Kim & Han: JST	2010	Hotel customers	US
	Lee & Chen: JCIS	2010	Students	US
	Phau & Ng: JBE	2010	General population	Australia
	Grandón et al.: JBR	2011	Managers/ owners	Chile
	Litvine & Wüstenhagen: EE	2011	General population	Switzerland
	Lokhorst et al.: AP	2011	Farmers	Netherlands
	Pookulangara et al.: JRSC	2011	Students	US
	Rong-Da & Lim: IJHM	2011	Students	UK
	Sorensen et al.: AJPB	2011	Farm owners	US
	Yoon: JBE	2011	Students	China
	Bagley et al.: AH	2012	Student and professionals	US
	Chou et al.: IJHM	2012	Managers	China (Taiwan)
	Goethner et al.: JEP	2012	Scientists	Germany
	Jaime: JBR	2012	Managers	European Union
	Khalifa et al.: JCIS	2002	Students	United Arab Emirates
	Lee & Gould: IJHM	2012	Community-dwelling older adults	US

Methodology	Author: Publication	Year	Sample Characteristic	Country/Area
	Moons & De Pelsmacker: JMM	2012	Drivers	Belgium
	Obschonka et al.: JVB	2012	Scientists	Germany
	Sardžoska & Tang: JBE	2012	Employees and managers	Republic of Macedonia
	Serenari et al.: JST	2012	Guides	US
	Shim et al.: JEP	2012	Students	US
	Verheul et al.: JEP	2012	General population	29 countries
	Wu & Tang: JGS	2012	Students	Hong Kong and Macao
	Yang: JRSC	2012	General population	US
	Al-Debei et al.: DSS	2013	Students	Jordan
	Andrews & Bianchi: JBR	2013	Graduated students	Chile
	Dalton et al.: AH	2013	Student and professionals	US
	Kim, Njite et al.: IJHM	2013	Students	US
	Kim, Ham et al.: IJHM	2013	General population	South Korea
	Läpple & Kelley: EE	2013	Farmers	Ireland
	Lee: JGS	2013	Students	US
	Onwezen et al.: JEP	2013	Students	Netherlands
	Wu et al.: JGS	2013	General population	Macau
	Yang: JCIS	2013	Consumers	US
	Chen & Tung: IJHM	2014	General population	China (Taiwan)
	Cheng & Chu: JBE	2014	Students	China (Taiwan)
	Cheng & Huang: IJIM	2014	Registered members of the ihergo website	China (Taiwan)
	Girona & Korgaonkar: JMM	2014	Students	US
	Han & Hwang: IJCHM	2014	General population	South Korea
	Jebarajakirthy & Lobo: JRSC	2014	Youths	Sri Lanka
	Lee et al.: JGS	2014	Gamblers	South Korea
	Loureiro & de Araújo: JRSC	2014	Consumers	Brazil
	Mäntymäki et al.: IJIM	2014	users of Habbo Hotel	Finland
	Oren et al.: JVB	2014	Students	Israel
	Phau et al.: JMM	2014	Students	Australia

Methodology	Author: Publication	Year	Sample Characteristic	Country/Area
	Swaim et al.: JBE	2014	Students	US
	Cheng: JBE	2015	General population	China (Taiwan)
	Chu et al.: JBE	2015	employees	Hong Kong
	Zapkau et al.: JBR	2015	Student and professional	Germany
	Guerrero & Hatala: CDI	2015	employees	Canada
	Hajli et al.: TFSC	2015	Online communities	Malaysia
	Han & Yoon: IJHM	2015	Customers	US
	Lee et al.: IJCHM	2015	General population	South Korea
	Leroy et al.: JSBM	2015	Entrepreneurs	Belgium
	Peluso: BEAER	2015	Farm owners	Italy
	Previte et al.: IJCS	2015	Young adults	Australia
	Ramamonjiarivelo et al.: HMQ	2015	Students	US and Canada
	Sieger & Monsen: JSBM	2015	Students	Europe
	Tan et al.: ATBMR	2015	Accountants and auditors	China
	Wated & Sanchez: JBE	2015	Manager	Ecuador
	Wu et al.: JBR	2015	Government employee	China (Taiwan)
	Xiao et al.: JCIS	2015	Student and academic faculties	China
	Yun & Lee: TFSC	2015	General population	US
	Zhang et al.: ERJ	2015	students	US
Experiment	Van der Zee et al.: JAP	2002	General population	Netherlands
	Bamberg: JEP	2002	Students	Germany
	O'Connor et al.: BJP	2005	Students	UK
	Conner et al.: BJP	2007	Drivers	UK
	Elliott & Armitage: BJP	2009	General population	UK
	Kulviwat et al.: JBR	2009	Students	US
	Lemmens et al.: BJP	2009	Students	UK
	Armitage & Talibudeen: BJP	2010	16- to 18-year-olds	UK
	Rabl: JBE	2011	Students	Germany
	Rauch & Hulsink: AMLE	2015	Students	Netherlands

Methodology	Author: Publication	Year	Sample Characteristic	Country/Area
Survey and experiment	Carpenter & Reimers: JBE	2005	Students	US
	Brown et al.: JST	2010	Visitors	Australia
Others*	Kaufmann et al.: EE	2009	No sample	European Union
	Thomas & Lamm: JBE	2012	No sample	US
	Chan: AP	2014	No sample	Singapore
	Kulik i: JBE	2008	No sample	US
	Cohen et al.: JBE	2010	Corporate fraud cases	US
	Baden: AMLE	2014	Students	UK
	Keen et al.: JBR	2004	Shoppers	US
	Harms et al.: TFSC	2014	Entrepreneurs	European Union
Michaelidou & Hassan: JMM	2014	No sample	Across the world	

* Such as laboratory experiments and simulation techniques

The results shown in Table 8 suggest that a survey is the dominant data collection method. More than 87% (130 out of 149 papers) of the studies reviewed used this method to collect data. Generally, the respondents were asked to describe or answer what they would do in a particular situation. The survey method has its disadvantages, largely due to the chance that it may not reflect the participants' real intentions. O'Fallon and Butterfield (2005) suggest that other methods, such as laboratory experiments and simulation techniques, can overcome this disadvantage. They argue that the effectiveness of testing the variables' influence over *intention* can be improved in a controlled environment. The findings of this review indicate that an experimental approach is another method that is widely applied in behavioural research (12 out of 149 papers). The benefits of this method are obvious. The participants can perform their behaviour within a situation that is similar to reality, such that the data collected reflect the respondents' real intentions. However, due to time, budget and validity limitations/issues, the experimental method is not widely adopted. Other methods such as interviews, case studies and classroom research are also used to collect data in the studies reviewed.

In terms of sample characteristics, student samples are the most common in business studies based on the TPB since 1991 (34% or 49 out of 144 papers, five of which do not use samples) (Table 8). This result is consistent with the findings reported in other similar literature reviews (i.e., O'Fallon & Butterfield, 2005; Randall & Gibson, 1990). A student sample is not favoured by some business ethics researchers who argue that it does not effectively imitate target groups. Randall and Gibson (1990) indicate that student samples can be appropriate if they share similar interests to those held by the target group regarding relevant variables. The greatest benefit of student samples is their availability. Rong-Da Liang and Lim (2011) show that student samples are sometimes selected due to limited resources. However, O'Fallon and Butterfield (2005) argue that student samples can restrict the generalisability of results. Therefore, Weber (1990) recommends using appropriate samples instead of student samples.

Another 17% of the papers reviewed (24 out of 144, five of which do not use samples) use a general population sample randomly selected from area populations, which includes customers, business professionals and other diverse participants.

Most of the abovementioned studies are conducted in the United States (US) (33% or 49 papers), followed by the United Kingdom (UK) (12% or 18 papers), China (Taiwan) (8 papers), Hong Kong (7 papers), Australia (6 papers), China (6 papers), the Netherlands (6 papers), Germany (5 papers) and South Korea (5 papers). The studies conducted within the European countries also include Belgium (4 papers). Thus, the results suggest that the TPB is examined most frequently within Western contexts. Only 28% (41 out of 149 papers) of studies are conducted in non-Western countries. Chinese culture is another background that attracts researchers' attention. Twenty papers (eight in China (Taiwan), six in Hong Kong and six in mainland China) explore the Chinese cultural context.

2.5 Conclusion of Chapter 2

The TPB provides a useful conceptual framework for explaining and predicting behavioural intention (Conner & Armitage, 1998). Since its first publication in 1985, the predictive validity of TPB has been explored by researchers. Although the TPB has been successfully utilised in many academic disciplines, “a lack of research results in uncertainty when these findings apply to other types of behavioural intentions and context” (Grandón, Nasco, & Mykytyn, 2011, p. 292). To explore and explain this gap, this chapter has reviewed the studies across various business fields and cultural contexts from 1990 to 2015. The results show that it is successfully applied in various business contexts. Because this thesis also conducts research in the business field, the TPB is an appropriate theoretical bases for this thesis.

Furthermore, as previously mentioned, consumer’s intention is the issue that has drawn most researchers’ interests. This result indicates that marketing is the field that has been the most frequently analysed by the TPB. Management is also another field identified in this chapter that has widely applied the TPB conceptual framework. Zgheib (2005) indicates that ethical intentions of managers are of increasing concern among researchers, since managers need to deal with various types of moral conflicts on their working places. This issue is so important that a considerable amount of studies have focused on this area (Zgheib, 2005). The results of this review also show that the TPB is applied in this field (five papers are concerned with this domain), as the TPB is considered to be one of the best-known models for predicting unethical behaviour (Leonard et al., 2004). Among these studies, researchers are especially concerned with managers’ intentions to commit financial or accounting fraud (e.g., Carpenter & Reimers, 2005; Cohen et al., 2010). However, concern only with manager’s ethical intention cannot efficiently avoid financial scandals, since auditors are also responsible for financial scandals as they play an important role in adding credibility to financial statements (Firth, Mo & Wong, 2005). Thus, the ethical intentions of accountants or auditors should not be neglected when trying to eliminate fraudulent financial reporting. Unfortunately, very few studies address this research issue. Bagley et al. (2012) use the TPB conceptual framework to focus on accountants’ choices between Big 4 and non-Big 4 jobs. Dalton et al. (2013) investigate accountants’ decision-making when working on taxes or audits. Only Buchan (2005)

and Tan, Fan, Woodbine, and Jiang (2015) use the TPB to analyse public accountants' moral intentions. Hence, this thesis identifies a significant gap and opportunity to examine auditors' ethical intention, specifically by examining Chinese auditors' moral intention through the TPB model.

Finally, this chapter also provides a comprehensive summary of the approaches that extend or decompose the TPB, including work that summarises the additional variables explored as determinants of *intention* in the business context and independent TPB constructs such as *past behaviour*, *self-identity*, *ease of use*, *perceived usefulness*, *normative beliefs* and *control beliefs*. Pookulangara et al. (2011) further indicate that decomposing the TPB belief constructs would be beneficial for building a new model to better understand *intention* in different contexts. Taylor and Todd (1995) also find that decomposing belief constructs can account for more variances in *intention* than the TPB. Considering that this thesis attempts to investigate and predict Chinese auditors' ethical intentions when they face pressure from their clients, the TPB constructs are decomposed to incorporate variables that play important roles within the auditor-client context. These variables are provided by the KP micro-level model, which will be introduced and reviewed in Chapter 3.

Chapter 3: Review of the Kleinman and Palmon micro-level model

3.1 Introduction

This chapter reviews empirical findings related with the Kleinman and Palmon (KP) micro-level model, which supports the choice of further variables for analysis in this thesis. This chapter is organised as follows. Section 2 describes the research method for the literature review and samples included in this chapter. Section 3 discusses internal factors affecting an auditor's ethical decision-making. Section 4 discusses the social variables influencing an auditor's ethical choice. Section 5 discusses the associations with organisational control variables related to an auditor's ethical decisions. Section 6 summarises findings of this chapter. At the end of each section, there is a subsection summarising the conclusions of the section. Based on the variables identified in this chapter and the TPB discussed in Chapter 2, Chapter 4 constructs a conceptual framework and develops hypotheses among variables discussed in Chapters 2 and 3.

Because this thesis is concerned with Chinese auditors' ethical decision-making processes within the auditor-client relationship, the TPB and the KP micro-level model are utilised. As discussed in Chapter 2, the TPB is an open model which enables consideration of many variables enabling the investigation of an individual's intentions in varying contexts. Thus, new variables need to be considered to integrate with the TPB when applying the TPB in the auditor-client context. To explore antecedents affecting the Chinese auditors' ethical decision-making process, Kleinman and Palmon (2001) propose a multi-level (i.e., micro-level and macro-level) conceptual framework. The micro-level model explores antecedents influencing an individual's intention to maintaining independence, while the macro-level model views an accounting firm as one individual and explores the antecedents influencing relationships between accounting firms and their clients. Since the objective of this thesis focuses on the antecedents influencing auditors as individuals, the micro-level model is adopted in this thesis.

The objective of this chapter is to select and justify the choice of variables related to an auditor's intentions within the KP micro-level model by reviewing prior literature. Although the KP micro-level model has built up a parsimonious insight for

investigating auditors' ethical decision-making within the auditor-client context, this model lacks empirical support because of the difficulty in demonstrating support via empirical testing (Quick, 2002). This chapter attempts to address this difficulty by examining the associations proposed by the KP micro-level model to identify effective variables affecting ethical decision-making through an empirical review. This chapter will provide empirical support for the KP micro-level model, but will also identify further opportunities for investigating auditors' ethical decision-making. Additionally, the variables confirmed by prior studies can be integrated with the TPB model, and be constructed the theoretical framework for this thesis.

Kleinman and Palmon (2001) attempt to understand the cause of auditor-client conflict and to discern the antecedents affecting an auditor's decision-making process. According to Kleinman and Palmon (2001), the source of these variables influencing the auditor's ethical perception can be classified into three dimensions: the factors internal to auditors; variables in the social context; and forces from organisational control systems.

The forces internal to auditors are personal characteristics that lead auditors to act in a certain way. An individual's behaviour is either subtle or directly influenced by personal factors within any environment. The factors explored by the KP micro-level model include *personality, motivation, aspiration levels, values* and *stage of life/age*. Furthermore, as a social individual, auditors can also be influenced by various forces in the society. Based on the source of these forces, Kleinman and Palmon (2001) classify them into three aspects: *intra-firm, professional* and *personal environment*. Finally, to ensure the employee's behaviour corresponds with organisational goals and values, accounting firms commonly design a control system for maintaining the auditor's independence over and above the levels required by the code of ethics. Based on existing literature, Kleinman and Palmon (2001) argue that *organisational selection, ethical climate, organisational culture* and *organizational structure* constitutes an organisational control system. The structure of this model is summarised in Figure 3.

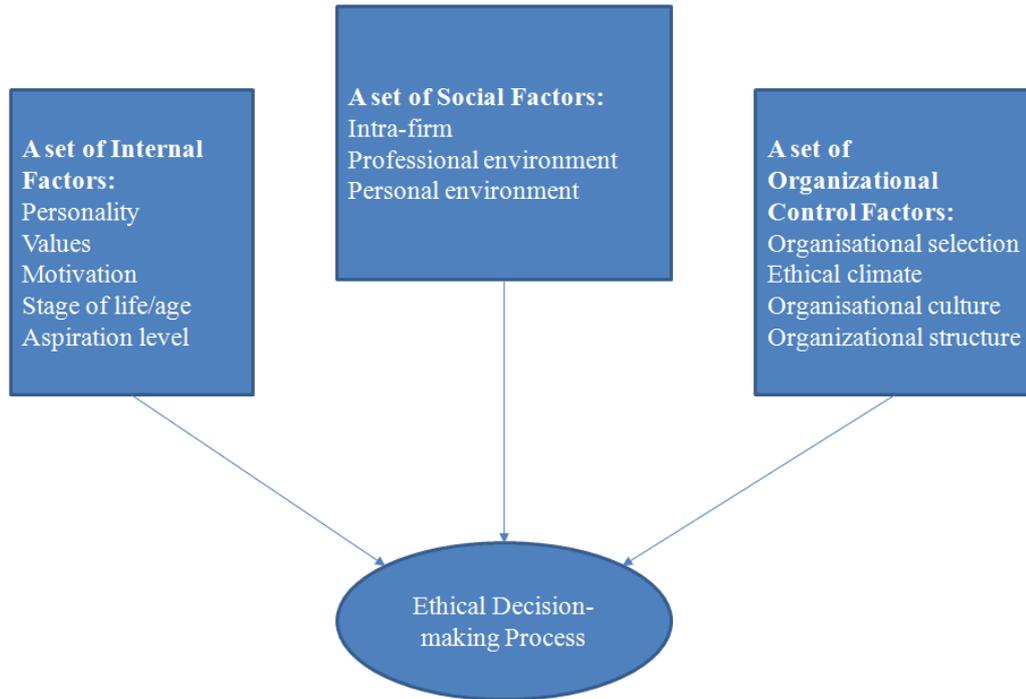


Figure 3: Conceptual framework of the KP micro-level model

However, not all of the variables proposed by the KP micro-level model are supported by empirical evidence as to their influence on the auditors' ethical decision-making process. A reviewed of existing literature confirms *value (ethics)*, *code of ethics*, *interpersonal relationships* and *ethical climate* as variables influencing an auditor's ethical decision-making. Other variables such as *corporate ethical values* have also been discussed.

3.2 Research method on literature review

As the KP micro-level model is first proposed in 2001, this chapter reviews the literature by searching academic journal articles for the period from 2001 to the present. The research method adopted by this chapter is similar as that used in Ruch and Taylor (2015). Papers are searched by utilising the keyword of related variables (e.g., *code of ethics*) with "ethical decision-making" and "auditors" together from the EBSCO database. All papers included in this chapter are published in high-quality research

journals, that is, studies that are published on the journals ranked A on the ABDC Journal Quality List. Finally, this chapter reviews 30 prior studies examining the effects of variables that are proposed by the KP micro-level conceptual framework. Panel A in Table 9 provides a count of studies grouped by source, while Panel B groups the papers reviewed in this chapter by topics.

Table 9: Group of studies reviewed

	Number of papers reviewed
Panel A: Studies reviewed (by Journal)	
Journal of Business Ethics (JBE)	16
Behavioural Research in Accounting (BRA)	3
Accounting, Auditing and Accountant Journal (AAAJ)	2
Accounting, Organizations and Society (AOS)	2
Accounting Horizons (AH)	1
Auditing: A Journal of Practice & Theory (AAPT)	1
Business Ethics Quarterly (BEQ)	1
Group Decision Negotiation (GDN)	1
International Journal of Auditing (IJA)	1
Review of Accounting Study (RAS)	1
Strategic Management Journal (SMJ)	1
Panel B: Studies reviewed (by Topic)	
Individual variables	17
Social variables	6
Organisational control variables	10

Note: Some papers are included more than one dimension in Panel B. For instance, Douglas, Davidson, & Schwartz (2001) examines both individual and organisational variables.

The findings related to the variables referred by the KP micro-level model are summarised in Tables 10, 11 and 12. Additionally, methodological issues (e.g., samples and data collection method) are also summarised.

3.3 Internal variables

As identified in Figure 3, the KP micro-level model categorises factors internal to individuals into *personality, values, motivation, stage of life/career* and *aspiration level*. In this section, the influences of these factors are examined by reviewing related empirical evidence from prior research. The effects of these variables on ethical decision-making are summarised in Table 10. Most of these studies are published in the *Journal of Business Ethics* (9 out of 17 papers). Survey is also the dominant research method (13 out of 19 papers) in these studies. Furthermore, researchers of these studies put their emphasis on the US background (11 out of 19 papers). The findings with variables proposed by the KP micro-level model are discussed as follows.

Table 10: Studies on the effects of internal variables

Author & Year	Variables referred in the KP micro-level model	Publication	Research objectives	Sample	Methodology	Findings
Douglas et al. (2001)	Personal value	JBE	To investigate influences of personal values and other variables on judgement of accounting profession	Auditors in accounting firms in the US	Survey	Personal values can affect auditor's ethical judgement when they face with ethical dilemma
Paolillo and Vitell (2002)	Machiavellianism	JBE	To examine effects of a series of personal and organisational factors on ethical intention	Business managers in the US	Survey	Both of individual factors and organisational factors have no significant influences on ethical intention
Uddin and Gillett (2002)	Self-monitoring	JBE	To examine the effects of moral reasoning and self-monitoring on intention to report fraudulently	Treasurer or the chief executive officer in publicly traded firms in the Netherlands	Survey	Self-monitor are not significantly related with the behaviour of reporting fraudulently
Warming-Rasmussen and Windsor (2003)	Ethics	JBE	To examine auditors' moral development based on Kohlberg (1969) three-stage model	Auditors in the largest international firms in Denmark	Survey	The stage of moral development can affect auditor's moral judgement

Author & Year	Variables referred in the KP micro-level model	Publication	Research objectives	Sample	Methodology	Findings
Street and Street (2006)	Machiavellianism and locus of control	JBE	To investigate whether escalating commitment situations could induce unethical behaviour	Undergraduate Business Students in the US	Experiment	Results show that individuals with an external control were more likely to perform unethically. However, Machiavellianism are found to have no effects on ethical choices
Shafer and Simmons (2008)	Machiavellianism	AAAJ	To investigate the effects of attitudes towards codes of ethics and Machiavellianism on tax professionals' unethical intention	Tax professionals in Hong Kong	Survey	Machiavellianism affects accounting professionals' ethical judgements towards aggressively tax avoidance
Wakefield (2008)	Machiavellianism	BRA	A number of research questions related with Machiavellian trait and accounting profession	Auditors in the US	Survey	Findings indicate that auditors are significantly less Machiavellian than other groups. Furthermore, Machiavellian behaviour is not required to achieve success in the accounting profession
Karacaer et al. (2009)	Personal value	JBE	To investigate the influences of personal values on auditor's ethical decision-making in two countries	Auditors in Pakistan and Turkey	Survey	Findings suggest that personal value can influence auditor's ethical judgement and intention
Elango et al. (2010)	Ethics and stage of life/career	JBE	To explore the impact of both of individual ethics and organisational ethics on ethical intention	MBA students in the US	Survey	The results show that individual ethics affect ethical intention. Furthermore, age is also a determinant for ethical intention

Author & Year	Variables referred in the KP micro-level model	Publication	Research objectives	Sample	Methodology	Findings
McKnight and Wright (2011)	Locus of control	AAPT	To examine the relationships between personal characteristics and high-level performance in auditing profession	Auditors in the US	Survey	High-performance auditing is related with internal locus of control
Murphy (2012)	Machiavellianism	AOS	To explore more details about attitude and rationalisation	Auditors in the Canada	Experiment	Findings show that individuals who are higher in Machiavellianism are more likely to misreport
Dalton and Radtke (2013)	Machiavellianism	JBE	To investigate the relationship between Machiavellianism and whistleblower behaviour	MBA students in the US	Survey	Findings show that Machiavellianism is negatively related to whistleblowing
Singhapakdi et al. (2013)	Motivation	JBE	To investigate the potential influences of money orientation on manager's ethical decision-making	Managers in the US	Survey	The findings show that "love of money" influence manager's ethical intention
Kleinman et al. (2014)	Dogmatism	GDN	To examines cognitive factors and risk preference factors that may impact the negotiation	MBA and MS student in accounting in the US	Survey	Actively open-minded thinking (Dogmatism), is not significantly related to success in the negotiations, nor to argue strongly for his/her position
Bobek et al. (2015)	Motivation and stage of life/career	BRA	To investigate the effects of professional role and gender on the auditor's ethical decision-making	Auditors in the US	Experiment	Participants are more likely to concede in tax context than that in auditing context. Moreover, Younger auditors are more likely to

Author & Year	Variables referred in the KP micro-level model	Publication	Research objectives	Sample	Methodology	Findings
Bergner et al. (2015)	Aspiration level	BRA	This study explores the impact of tactics used by a client during negotiations impact experienced auditors' propensity to waive material adjustments	Partners, senior managers in the US	Experiment	concede with their clients The results indicate that auditors are more likely to waive their material adjustment when these auditors have lower expectation to achieve their goals
Johari et al. (2017)	Ethics	IJA	To examines the effects of individual ethical orientation, and other factors on auditors' ethical decision-making process	Auditors in Malaysia and Australia	Survey	Auditors ethical orientation is positively affected their ethical intention

3.3.1 Personality factors

According to the Kleinman and Palmon (2001), a personal trait is a complex concept and includes many dispositions. Based on prior studies, the KP micro-level model has explored individual components including *Machiavellianism*, *dogmatism*, *locus of control* and *self-monitoring*. These are discussed below.

3.3.1.1 Machiavellianism

Kleinman and Palmon (2001) suggest that auditors who exhibit high *Machiavellianism* (high machs) will calculate their financial benefits before they accommodate their clients. They would also like to follow their supervisor's or manager's pattern of behaviour in the firm, since this behaviour can help them to avoid risks. Similarly, Jakobwitz and Egan (2005) contend that *Machiavellianism* is an interpersonal strategy to focus on "self-interest, deception and manipulation" (p. 332). It is believed to be

one dimension of the “dark triad” of personality. Since auditors with high machs pay a lot of attention to analysing their gains and losses, the KP micro-level model infers that these auditors’ decisions to compromise with their clients depend on the ethical environment around them. However, according to the results in prior studies, the association between *Machiavellianism* and an auditor’s ethical intention is more complex than that which is estimated by the KP micro-level model. The results of these prior studies can be categorised into three dimensions.

The first dimension of results has found no relationships between *Machiavellianism* and the ethical decision-making process. For instance, Paolillo and Vitell (2002) explore influences of selected personal and organisational factors on the ethical decision-making process. Contrary to their hypothesis, they find that none of these factors significantly affect ethical decision-making. Street and Street (2006) further investigate the influences of *Machiavellianism*. Their finding is somewhat surprising, indicating that *Machiavellianism* is not associated with ethical decision-making. They suggest that the influences of *Machiavellianism* require further examination.

The second dimension of results provides evidence supporting the association between *Machiavellianism* and the ethical decision-making process. For instance, Shafer and Simmons (2008) conducted a study about the relationships between tax professionals’ attitudes, social responsibilities and *Machiavellianism* within Chinese settings. Their studies find that *Machiavellianism* significantly affects accounting professionals’ ethical judgements, and significantly influences attitudes towards ethical behaviour. Similarly, Wakefield (2008) conducts a study exploring a series of research questions about the relationships between *Machiavellianism* and the accounting profession. He finds that accounting professionals are less Machiavellian than other professional groups. However, accounting professionals higher in *Machiavellianism* tend to have relativistic ethical attitudes. This evidence indicates that *Machiavellianism* could negatively affect an auditor’s ethical judgements, and thus result in the failure of their profession. Murphy (2012) also provides evidence to support the association between *Machiavellianism* and ethical behaviour of misreporting. After investigating auditors in the US, Murphy (2012) contends that auditors higher in *Machiavellianism* prefer to misreport than their colleagues, and they also have significantly less guilty feelings. This result indicates that *Machiavellianism* is associated with unethical behaviour,

such as misreporting, and thus is consistent with the results of the studies mentioned above.

The final dimension of results, however, consistent with the statement proposed by the KP micro-level model, suggests that *Machiavellianism* has a joint effect with ethical environment on the ethical decision-making process. Dalton et al. (2013) contend that *Machiavellianism* and ethical environment can jointly affect an individual's business intention. They investigate the ethical behaviour whistleblowing, i.e., managers revealing accounting frauds of companies. The results indicate that *Machiavellianism* is negatively related to whistleblowing. However, an ethical working environment will encourage business individuals higher with *Machiavellianism* to perform more ethical behaviours.

3.3.1.2 Dogmatism

Compared with *Machiavellianism*, individuals with higher *dogmatism* are more likely to rely on expertise (DeBono & Klein, 1993), and view the clients as the individuals who do not have qualifications to question audit results (Rokeach, 1960). Thus, the KP micro-level model suggests that individuals with higher *dogmatism* have a tendency to refuse the client's claim and to maintain their independence. However, Kleinman, Palmon and Yoon (2014) conduct an experiment examining the influences of cognitive characteristics on the auditor-client negotiation process, and the results show that active open-minded thinking, which is used to measure an individual's *dogmatism*, is not significantly associated with an auditor's decision-making. Thus, this result indicates that *dogmatism* could not be considered as a determinant for an auditor's ethical judgements.

3.3.1.3 Locus of control

According to the theory of locus of control, people who attribute their success to themselves are classified as internals, and people who ascribe control of an event to some outside factors are referred to externals (Rotter, 1966). In the KP micro-level

model, auditors with internal control are considered more likely to refuse to compromise with a client's requirement. However, this statement lacks consolidated empirical support. Street and Street (2006) confirm the effects of *locus of control* on the ethical decision-making process. However, their experiments are conducted in an investment context, not an auditor-client context. Participants in their experiments are required to role play as investors. The environment in this decision-making experiment is different from that in an auditor-client context. Thus, the results of Street and Street's (2006) study cannot demonstrate the relationship between an auditor's behaviour of compromising with clients and *locus of control* proposed by the KP micro-level model. Further research relating to the *locus of control* is McKnight and Wright (2011), which compares the characteristics of high-performance auditors and low-performance auditors. They find that auditors with an internal *locus of control* is related to high auditing job performance, whereas there is no direct evidence to support the impact of *locus of control* on *intention* to maintain independence within auditor-client relationships.

3.3.1.4 Self-monitoring

Self-monitoring is a manner to manage public presentation (Snyder, 1974). Kleinman and Palmon (2001) indicate that individuals with high *self-monitoring* have the ability to alter behaviour for matching other's expectation. Considering the nature of audit works, Kleinman and Palmon (2001) suggest that this variable could affect an auditor's ethical intention. However, they cannot give more details, since they lack relevant literatures. To further investigate this issue, Uddin and Gillett (2002) examine the influence of *self-monitoring* on CFO's ethical intention to report fraudulently. However, contrary to their hypothesis, this variable is not significant on ethical intention, though it can be negatively associated with *subjective norms*.

3.3.2 Value

Value is a stable component of personality, and can prohibit individuals performing behaviours which they consider improper (Harrison, 1995). Kleinman and Palmon

(2001) further suggest that ethics is a crucial element of personal value, and can influence an auditor's ethical intention. The results from Douglas et al. (2001), which examine the influence of auditors' ethical orientation and environmental variables on their ethical judgements, support the statements proposed by the Kleinman and Palmon (2001) and find that personal values can affect auditors' judgements in high moral intensity. To further investigate the influence of an individual's ethics, Warming-Rasmussen and Windsor (2003) investigate Spanish auditors by utilising Kohlberg's (1969) three-stage model. They conclude that auditors with different moral stages have different attitudes towards pressure from their clients, indicating that ethics is a determinant for auditor's intention to maintain independence. This statement is also supported by Karacaer, Gohar, Aygün, and Sayin's (2009) study, where they compare the effects of personal value on the auditors' ethical decision-making process when these auditors are faced with pressure from clients in Pakistan and Turkey. The results suggest that personal value, including instrumental and terminal values, could positively affect auditors' ethical intention. Consistent with other studies, Elango, Paul, Kundu, and Paudel (2010) confirm the influence of individual ethics, and contend that individual and organisational ethics could jointly affect ethical intention. The latest empirical evidence comes from Johari, Mohd-Sanusi, and Chong (2017). They conduct the experiment and support the hypothesis that ethical orientation could positively affect the ethical decision-making process. This influence can also be mediated by moral intensity.

3.3.3 Motivation

Based on the information of personalities and values, *motivation* theory can reveal what is valuable to an individual and analyse their reaction to a particular situation. To some extent, individuals' *motivation* is greatly varied, based on the personalities and values of the individuals. To further explore the nature of *motivation*, Kleinman and Palmon (2001) have summarised several typologies of individuals' motivations. These factors include occupancy of professional roles and motivator potency. Professional role is referred as individuals' motivations to continue their professional roles career both in career and daily lives. Bobek, Hageman, and Radtke (2015) examine the

influence of professional roles on ethical decision-making. They find that accounting professionals are less likely to concede with their clients' requirements in an auditing context compared with that in a tax accounting context. This result indicates that professional role could affect an auditor's ethical intention to compromise with clients. Another important dimension of motivation is motivator potency, including external and internal motivators, such as money and power. Singhapakdi, Vitell, Lee, Nisius, and Grace (2013) examine the impact of money orientation on managers' ethical decision-making in a marketing context. The results show that managers' aspirations of money indeed negatively impact their ethical intention.

3.3.4 Stage of life/career

Kleinman and Palmon (2001) describe two ways that *stage of life/career* can affect an auditor's reaction to a client. Firstly, it affects the auditor's willingness to cope with their clients. Secondly, a higher position in the firm might help auditors enhance their abilities to comprehensively cope with the problem presented by the client. Unfortunately, there is no empirical evidence directly supporting Kleinman and Palmon's (2001) statements. However, some of prior studies (e.g., Bobek et al., 2015) demonstrate that year/experience could be considered as a determinant for auditors' ethical decision-making. For instance, Elango et al. (2010) suggest that age could be a determinant for ethical intention, since the influences of organisational ethics is different between younger and older groups. Bobek et al. (2015) also investigate public accountants and find that years of experience can be beneficial for decreasing the likelihood of conceding to their clients.

3.3.5 Aspiration level

Aspiration level is another important antecedent determining an auditor's ethical judgements, since it can imply the intensity of effort to achieve the goals. The higher *aspiration level* is, the more possibility that an auditor will compromise to their client's request. Therefore, different levels of aspiration would have different influences on the auditor's intention to maintain independence when they conflict with their client.

This statement can be partially supported by findings from Bergner, Peffer, and Ramsay's (2015) study. They examine the effects of tactics in the negotiation between auditors and clients based on the level-of-aspiration theory. The results show that auditors are more likely to waive their material adjustment when these auditors have lower expectation to achieve their goals. This result can suggest that *aspiration level* is positively associated with auditors' ethical intention to maintain their independence

3.3.6 Conclusion of internal variables

As discussed, the KP micro-level model proposes *personality (Machiavellianism, dogmatism, locus of control and self-monitoring)*, value (ethics), *motivation, stage of life/career* and *aspiration level* as internal determinants for the auditors' ethical decision-making process. However, according to the empirical research reviewed, not all of these variables have been demonstrated to be antecedents influencing an auditor's ethical decision-making. The research to date into the influence of these variables can be categorised into three dimensions. The first dimension relates to variables which prior studies demonstrated as having no influence on ethical decision-making. These include the variables of *dogmatism* and *self-monitoring*. The second dimension relates to variables which lack direct evidence supporting their influence on ethical decision-making or provide only limited evidence. For example, the influences of *aspiration level* is only partially supported by prior studies. Furthermore, professional year and position can be considered as factors affecting auditors' decision-making. However, the KP micro-level model suggests that definition of *stage of life/career* should be more complex, and cannot be simply considered as the auditor's working year/position. Hence, only parts of components of this variable can be demonstrated to have influences on auditors' ethical decision-making. The variable of *motivation* has the similar situation. This variable includes components such as professional role and motivator potency (money, power, status, self-actualisation, etc.). Only parts of these components examined by prior studies can be considered as determinants for the auditors' ethical decision-making process. Further, although Street and Street (2006) find that variable of *locus of control* has influence on the ethical decision-making process, their experiments are conducted in an investment context, not an auditor-client context. Thus, *locus of control* cannot be considered as a

determinant for auditors' ethical decision-making. Additionally, the results about *Machiavellianism* are mixed. The influences of this variable on ethical decision-making is confirmed under some situations (e.g., Shafer & Simmons, 2008; Murphy, 2012), but denied under other situations (e.g., Paolillo & Vitell, 2002; Street & Street, 2006). Dalton and Radtke (2013) indicate that the associations of the effects of this variable on auditors' decision-making should be further investigated. The final dimension includes variables (*value*) which are confirmed as determinants for auditors' ethical decision-making. Ethics is an important element of personal value, reflecting individuals' stable stereotype about performing a special behaviour. Considerable research to date (e.g., Karacaer et al., 2009) demonstrates associations between ethics and ethical decision-making. Karacaer et al. (2009) also conclude that auditors at different stages of moral development would have different attitudes towards their clients' pressure.

In the KP micro-level model, Kleinman and Palmon (2001) recommends Kohlberg's (1969) three-stage model to investigate personal ethics. In this model, moral development can be divided into three stages: pre-conventional, conventional and post-conventional. Kleinman and Palmon (2001) argue that this model addresses how individuals make ethical or unethical decisions. However, this chapter prefers to utilise Forsyth's (1980) theory to investigate individual's ethical decisions. According to Forsyth's (1980; 1992) studies, most of an individual's moral philosophies can be described parsimoniously by taking into account two factors: *relativism* and *idealism*. *Relativism* reflects the degree to which a person rejects the universal principles, while *idealism* focuses on an individual's consideration of their behaviour on another's welfare (Forsyth, 1992). Individuals with high *relativism* do not believe there is any universal moral principle and feel that the moral action should be dependent on the nature of the situation and the people involved (Forsyth, 1992). Highly idealistic individuals hold the beliefs that "right" action can lead to "good" consequences, and harming others can be completely avoided. Compare with other widely accepted theories about personal ethics (e.g., Schlenker & Forsyth, 1977; Forsyth, 1980; Hunt & Vitell, 1986), Forsyth's theory has adopted a mixed deontological-teleological system which is recommended by Hunt and Vitell (1986). Thus, Forsyth's theory is more appropriate than other theories.

Forsyth's (1980) theory is also widely applied for business ethics research. For instance, Barnett, Bass, and Brown (1996) find that people with *idealism* are more likely to engage in ethical behaviour (e.g., report peer's cheating). Other studies (e.g., Karande, Rao, & Singhapakdi, 2002; Henle, Giacalone, & Jurkiewicz, 2005) also indicate *ethical ideologies* could be considered as a factor impacting on an individual's ethical decision. Similarly, Valentine and Bateman (2011) examine the influences of *ethical ideologies* on the salesmans' ethical decision-making process. The results show that *idealism* is positively associated with *intention*, while *relativism* is negatively associated. Hence, this factor will be employed by this thesis to further investigate auditors' ethical decision-making within the auditor-client context.

In conclusion, this section examined the internal variables proposed by the KP micro-level model. Based on the literature review results, this section found that ethics (*ethical ideologies*) can be supported by prior studies. This variable will also be employed by this thesis for integrating with the TPB model.

Although internal factors can affect an individual's behaviour, these forces alone cannot sufficiently explain intention and behaviour. Furthermore, these internal variables are usually integrated with environmental variables and affect the auditor's ethical judgements within a social context. Therefore, social factors cannot be ignored. Kleinman and Palmon (2001) also investigate the auditor's role set within a society.

3.4 The social variables

The above section discusses the determinants of behaviour which were internal to auditors. However, as a social individual, auditors do not live in a vacuum. They must cope with various relationships with different parties in the society. Meanwhile, they act diverse roles when faced with different social stakeholders. For example, an auditor would like to play a parent role in the family, while they must act as a professional when they associate with their clients. These distinct roles might need auditors to perform diverse behaviours. To better describe this situation faced by auditors, Kleinman and Palmon (2001) introduce a definition of *role set*, which notes that people take counter-positions that are associated with certain roles. The key element of *role*

set is the existence of role senders. These role senders are parties associated with the auditors, such as family, a reviewer in the firm, clients, the American Institute of Certified Public Accountants (AICPA) and so on. Kleinman and Palmon (2001) classify role senders into three categories: intra-firm, professional environment and personal environment. The effects of social variables related with ethical intention are grouped in Table 11. The results show that the *Journal of Business Ethics* publishes more papers with this issue than any other journal. Contrary to methodologies that appeared in studies related to individual variables, researchers in this dimension prefer to utilise experiment rather than survey. Moreover, most of these studies (i.e., five out of seven) are conducted in Western countries such as the US, Sweden, Australia, etc. The empirical findings about social variables are discussed as follows.

Table 11: Studies on the effects of social variables

Author & Year	Variables referred in the KP micro-level model	Publication	Research objectives	Sample	Methodology	Findings
Paolillo and Vitell (2002)	Code of ethics	JBE	To examine effects of a series of personal and organisational factors on ethical intention	Business managers in the US	Survey	The enforcement of codes of ethics have no significant influences on ethical decision-making
Jeffrey et al. (2004)	Interpersonal relationships	BEQ	To examine the influence of a series of internal and external variables on auditor judgements about ethical dilemmas	Auditors in Taiwan (China)	Experiment	This study finds that auditor's ethical intention can be affected by personal relationships, such as opinions from close friends
Stevens et al. (2005)	Code of ethics	SMJ	To explore the influences of codes of ethics on financial executives' ethical intention	Financial executives in the US	Survey	This study suggests that codes of ethics should be internalised to auditors themselves
Westerman et al. (2007)	Peer influences	JBE	To examine the influence of national culture and peers on an individual's	Graduate business students in Germany,	Survey	The results indicate that influences from peers is a significant referents in

Author & Year	Variables referred in the KP micro-level model	Publication	Research objectives	Sample	Methodology	Findings
			intention to behave ethically	Italy and Japan		ethical decision-making dilemmas
Martinov-Bennie and Pflugrath (2009)	Code of ethics	JBE	To examines the impact of variables related with ethical environment on ethical judgements	Auditors in the Australia	Experiment	Codes of ethics cannot impact auditor's ethical intention directly, until it is internalised to auditors
Selart and Johansen (2011)	Stress from leadership	JBE	To test stressful situations affecting both leadership ethical acting and leaders' recognition of ethical dilemmas	Managers in Sweden	Experiment	This study indicates that individual's ethical intention could be affected by opinions from their supervisors in firms
Yu (2011)	Legal system	RAS	To examine whether legal system enhances auditor independence	Auditors and business students in Taiwan (China)	Experiment	The results indicate that legal system in firms could be beneficial for auditors maintaining their independence

3.4.1 Intra-firm influences

In an accounting firm, the reviewer has the most influence on the auditor's ethical behaviour, since the reviewer examines the auditor's working process and results. Thus, the opinions from the reviewers will affect the auditor's ethical judgements. This claim is supported by several prior studies. For instance, Westerman, Beekun, Stedham, and Yamamura (2007) examine the influence of peers and national cultures on ethical decision-making. The results show that opinions from peers impact on an individual's ethical judgement, while this effect varied based on the national culture. Furthermore, Selart and Johansen (2011) have also documented the influences of stress

from leaderships on ethical behaviour. Their results suggest that an individual's ethical intention could be affected by opinions from their supervisors.

3.4.2 Professional environment

Another groups of parties related with the auditors were located within the professional environment. The institutions that regulate certified public accounts (CPAs), such as the AICPA and the Securities and Exchange Commission (SEC), have an enormous influence on the auditor's behaviour. They can regulate their members by making codes of ethical conducts to supervise and guide their members' behaviour. Supporting this statement, Yu (2011) finds that legal systems in firms could be beneficial for auditors maintaining their independence. However, Martinov-Bennie and Pflugrath (2009) doubt the influence of *codes of ethics*. They conduct an experiment to investigate the influences of ethical environment. Ethical environment around accounting managers is enforced through promotion of ethical standards. Contrary to their expectations, the results cannot provide any evidence supporting the influence of *codes of ethics* on accounting managers' ethical judgements. However, Martinov-Bennie and Pflugrath (2009) still argue that *codes of ethics* can affect ethical judgements when these codes are internalised to auditors. This statement is supported by Stevens, Kevin Steensma, Harrison, and Cochran (2005), who investigate the financial executive's ethical decision-making process. They further contend that *codes of ethics* should be internalised to auditors themselves through education programs.

3.4.3 Personal environment

The communities which interact with auditors in their daily lives can also influence their moral decision-making. These groups include the auditor's family, friends and other people who have close interpersonal relationships with the auditor. These emotional relationships may have influences on the auditor's ethical intention, which is supported by many studies. For instance, Jeffrey et al. (2004) conduct an experiment on auditors in Taiwan. They find that auditor's ethical choice (e.g., violating ethical standards) can be affected by opinions from close friends. This chapter demonstrates

that *personal relationships* have an influence on the auditors' ethical decision-making process. Similarly, the results of Liu's (2013) study also support this statement, indicating that the auditor's orientation towards *interpersonal relationships* could affect their unethical behaviour.

3.4.4 Conclusion of social variables

The external variables proposed by the KP micro-level model reflect the external environment faced by auditors. As previously mentioned, the groups which can influence an auditor's ethical decision-making can be classified into three dimensions: the institutions which regulate the auditing profession; supervisors and peers in firms; and people who have a close emotional relationship with the auditor. The regulatory institutions, such as SEC or AICPA, can influence auditors' ethical decision-making through codes of ethics and other laws or rules. Thus, *code of ethics* can be considered as an external force influencing auditors' ethical judgements. However, Martinov-Bennie and Pflugrath (2009) indicate that codes of ethics do not affect auditors' ethical judgements until these codes are internalised to the auditors themselves. Similarly, Pflugrath, Martinov-Bennie, and Chen (2007) also indicate that internalisation of codes of ethics to auditors can positively affect auditors' ethical judgements. They conduct an experiment examining the influence of *code of ethics* on the judgement of auditors and accounting students. The results show that *code of ethics* can significantly affect auditors' judgements, whereas they have no influence on accounting students' ethical choice. The reason behind this difference is that codes of ethics have been internalised by the auditors. McKinney, Emerson, and Neubert (2010) also suggest codes of ethics can reduce the possibility of auditors accepting ethically questionable behaviour. They further indicate that the association between *code of ethics* and ethical intention could be mediated by attitudes towards questionable behaviour. Hence, future studies will put emphasis on exploring the relationship between *code of ethics* and *attitudes towards behaviour*.

Peers in firms can influence an auditor's ethical choice by their regulatory power. However, this variable can be considered as a part of organisational control, which is discussed in the next section. The last group (i.e., people closely related to auditors)

affect the auditors' ethical decision-making process through their personal relationships with the auditors. In China, people use the term *guanxi* to describe this personal relationship. To explore the nature of *guanxi*, Su and Littlefield (2001) classify *guanxi* into two dimensions: *favour-seeking* and *rent-seeking guanxi*. *Favour-seeking guanxi* is stated as "culturally rooted ... and builds on interdependence and the sharing of scarce resources in a collectivist culture" (Su, Sirgy, & Littlefield, 2003, p. 310). The purpose of *favour-seeking guanxi* is to share scarce resources that are not available to other people. On the other hand, *rent-seeking guanxi* "reflects on institutional norms signifying social collusion based on power exchanges" (Su et al., 2003, p. 310). As suggested by Kleinman and Palmon (2001), some relationships might be a positive factor to the auditor, while others seem to negatively influence the auditor's ethical intention. The results of many prior studies (e.g., Fan, Woodbine, Scully, & Taplin, 2012a; Han, Peng, & Zhu, 2012) suggest that *favour-seeking* and *rent-seeking guanxi* can positively and negatively impact the individual's ethical judgement respectively. Hence, to explore variables affecting Chinese auditors' ethical decision-making, *guanxi* is a variable that cannot be ignored.

3.5 Organisational control variable

The previous section discusses the influence of social variables on the auditor's moral decision-making. However, these variables do not explain or predict an individual's behaviour sufficiently in isolation due to the complexity of the decision-making process. Auditors will consider performing their behaviour congruent with organisational preferences when they are faced with an ethical dilemma; meanwhile organisations also have control systems in place to ensure that the auditors' behaviour can satisfy the standards issued by the organisation. Kleinman and Palmon (2001) argue that *organisational selection*, *organisational culture*, *ethical climate* and *organisational structure* constitute an organisational control system. The studies examining these variables are shown in Table 12. According to the results, the *Journal of Business Ethics* is also favoured by researchers in this area (six out of ten studies). In comparison to the studies reviewed above, researchers have put more emphasis on the Chinese accounting and auditing profession (four out of ten studies), due to the rapid growth of the Chinese firms. Furthermore, survey is also the dominant method

utilised for collecting data by researchers in this dimension. The findings about associations between organisational control variables and ethical decision-making are discussed as follows.

Table 12: Studies on the effects of organisational control variables

Author & Year	Variables referred in the KP micro-level model	Public action	Research objective	Sample	Methodology	Findings
Douglas et al. (2001)	Ethical culture	JBE	To investigate influences of personal values and other variables on judgement of accounting profession	Practicing accountants in the Netherlands	Survey	They find that individual's ethical orientation and environmental variable have a joint effect on auditors' ethical judgements under high moral intensity
Buchan (2005)	Ethical climate	JBE	To examine the influence of personal, social and organisational factors on auditor's ethical intentions	Auditors in the US	Experiment	The results of this study support the association and find that instrumental climates can negatively affect the individual's intentions
Jennings et al. (2006)	Corporate governance	AH	To investigate the effects of corporate governance and firm rotation on auditor's perception of independence	Auditors in the US	Experiment	This study find that enforcement of corporate governance can affect auditors' perception of their independence
Shafer (2008)	Ethical climate	AOS	To explore the ethical culture or climate in Chinese CPA firms	Auditors in China	Survey	Perceptions of the ethical climate in one's organisation have a significant effect on ethical intentions
Zhang et al. (2009)	Ethical culture	JBE	To test a an ethical decision-making process among employees in the banking industry	Bank officers in China	Survey	The results show that perceived ethical culture has significant influences on auditor's ethical judgements of questionable behaviours
Elango et al. (2010)	Organisational climate	JBE	To explore the impact of both of individual ethics and organisational ethics on ethical intention	MBA students in the US	Survey	The results show that organisational ethics affect ethical intention
Sweeney et al. (2010)	Ethical culture	JBE	To examine the impact of ethical culture of the firm and selected demographic	Auditors in Ireland and the US	Survey	Certain dimensions of ethical culture have highly significant effects

Author & Year	Variables referred in the KP micro-level model	Public action	Research objective	Sample	Methodology	Findings
			variables on auditors' ethical intention			on intentions to engage in aggressive tax minimisation strategies
Shafer and Simmons (2011)	Ethical culture	AAAJ	To examine the impact of organisational ethical culture on the ethical decisions of tax practitioners in mainland China	Auditors in China	Survey	Findings support the statement that ethical culture can significantly impact on auditor's ethical decision-making
Yu (2011)	Corporate governance	RAS	To examine whether legal system enhances auditor independence	Auditors and business students in Taiwan (China)	Experiment	The results indicate that enhancing governance is beneficial for auditors maintaining their independence
Arfaoui et al. (2016)	Organisational selection (education)	JBE	To explore the influence of ethics education on accounting students' ethics development	Accounting students in Tunisia	Experiment	Ethics education has no influences, since there is no difference between pre-education and post-education

3.5.1 Organisational selection

Organisational selection is the first measure for controlling the auditor's behaviour. Through the selection of new entrants, the individuals who are obviously unsuitable for the organisational values and objectives can be excluded. Furthermore, selection can also impact on the auditor's personality. They need to cultivate the personal traits which are highlighted by the organisation, so that they cannot be removed in the next selection. Thus, the organisation can ensure that the new entrants have the social similarity through the selection procedure. Education is an essential component of selection, since it is an effective measure to narrow the variances among auditors and to induce them to conform with the organisational expectation. Through attending education programs, the new entrants can gain the techniques, norms and values that are needed for dealing with their clients. Furthermore, as mentioned earlier, the education programs can help the accounting firm transfer the goals and values into an individual's norms and beliefs.

However, few prior literature focus on the influences of *organisational selection*. Additionally, the influence of education is not supported by Arfaoui, Damak-Ayadi, Ghram, and Bouchekoua et al. (2016). They conduct an experiment to examine the effects of ethics education in the Tunisian audit context. Contrary to their prior expectation, there is no difference pre-education and post-education. This result indicates that ethics education has no effect on auditors' ethical choice. After a confirmatory qualitative survey, they suggest that adding a statement detailing the consequences of unethical behaviour would improve the quality of ethical education.

3.5.2 Organisational culture

Organisational culture is a complex phenomenon, which consists of large amounts of norms and behavioural patterns. It exists within a person's mind and shapes an individual's stable perception of the world around them (Hofstede, 1991). The *organisational culture* can significantly affect an auditor's intention and behaviour, since the culture will form the auditor's automatic response to certain situations (Kleinman & Palmon, 2001). This statement is supported by Douglas et al. (2001), who investigate the influences of a firm's ethical culture on auditors' ethical judgements. They find that individual's ethical orientation and environmental variable have a joint effect on auditors' ethical judgements under high moral intensity. Consistent with Douglas et al. (2001), Sweeney Arnold, and Pierce (2010) also demonstrate the importance of ethical culture for auditors. To explore this issue in China, Zhang, Chiu, and Wei (2009) examine the associations between ethical culture and an individual's ethical decision-making process in Chinese banks. The results show that ethical culture can be considered as a determinant for bank employees' ethical judgements. Similarly, Shafer and Simmons (2011) investigate tax practitioners in China, and find that certain dimensions of ethical culture are determinants for ethical intention. They suggest that this result could document significant influences of ethical culture on the auditors' ethical decision-making process.

3.5.3 Ethical climate

Victor and Cullen (1988) define *ethical climate* as “the prevailing perceptions of typical organisational practices and procedures that have ethical content” (p. 101). Kleinman and Palmon (2001) indicate that a relationship should exist between the auditors’ perceived *ethical climate* and their behaviour, while different types of *ethical climates* would diversely affect the auditor’s behaviour. These claims were also supported by prior studies. For instance, Buchan (2005) considered instrumental *ethical climate*, which “emphasize individual self-interest and company interests above all others are most likely to foster unethical behavioural intentions” (p. 169), as a variable influencing public accountant’s ethical intention. The results of this section support this association and find that instrumental climates could negatively affect the individual’s intentions. Shafer (2008) also investigates *ethical climate* in Chinese auditing firms. Consistent with his expectations, perceived *ethical climate* has a significant influence on auditors’ ethical judgements of questionable behaviours. Similarly, Elango et al. (2010) have explored the influence of personal ethics and organisational ethics on an individual’s ethical intention. The results show that both individual ethics and organisational ethics affect ethical intention.

3.5.4 Organisational structure

In the KP micro-level model, Kleinman and Palmon (2001) suggest that improving firm’s governance through adjusting organisational structures can be beneficial for enhancing auditors’ independence when they face pressure from clients. The influence of organisational governance on enhancing auditor’s independence is confirmed by prior studies. For instance, Jennings, Pany, and Reckers (2006) address the question of whether auditors’ independence will be influenced by corporate governance and rotating firms. The results support their hypothesis, which argues that strengthening corporate governance could enhance auditors’ perception of their independence. Yu (2011) also suggests that controlling system in firms, such as penalty, is positively associated with their independence. However, Kleinman and Palmon (2001) further suggest that administrative and professional affairs should be separated in the organisation. Administrative departments should consider the retention of clients,

while professionals focus on maintaining their independence. Unfortunately, there are few prior literatures examining Kleinman and Palmon's (2001) suggestions. Thus, the influence of changing organisational structure on auditors' ethical decision-making lacks empirical evidence.

3.5.5 Conclusion and future direction

This section provides a review of prior studies examining organisational factors proposed by the KP micro-level model. As mentioned previously, variables of organisational selection and organisational structure lack related empirical evidence supporting their associations with the ethical decision-making process. The influence of ethical culture on an auditor's intention is mixed. As Kleinman and Palmon (2001) suggested, not all types of organisational cultures can affect the auditor's intention to maintain independence positively. The effects of certain culture on the auditor's moral decision need to be analysed according to the practical environment. For instance, an authoritarian culture which is associated with the bureaucratic structure commonly has ineffective channels for communication between subordinates and their supervisors. This culture will easily lead to conflict, since the managers cannot make superior decisions because they lack the information provided by the subordinates. If managers would like to follow the codes of ethics rigidly, the auditors will give up their independence. However, if a manager makes a decision to adhere to the standards required by the codes of ethics, the subgroup will also find it is difficult to resist this decision because the bureaucratic structures can effectively avoid rebelling behaviour. The results of Shafer and Simmons (2011) also support this viewpoint, indicating that only certain types of organisational culture can enhance auditors' independence. Finally, *ethical climate* can be considered as a determinant for auditors' ethical intention, since the influence of this variable has been supported by many prior studies (e.g., Buchan, 2005; Shafer, 2008; Elango et al., 2010).

In addition to *ethical climate*, another important aspect of ethical conduct within the organisational ethical schema is *corporate ethical values*. *Corporate ethical values* are the central component of organisational ethical culture (Hunt, Wood, & Chonko, 1989), and is defined as a subset of the manager's personal ethics, and "formal and informal

policies on ethics of the organization” (Fernando, Dharmage, & Almeida et al., 2008). Singhapakdi, Salyachivin, Virakul, and Veerayangkur (2000) indicate that *corporate ethical values* can affect various aspects of the firm’s decisions, such as decisions regarding service quality and advertising strategy. Jansen and Von Glinow (1985) contend that strong *corporate ethical values* would be beneficial for organisations to establish the standards for guiding members into recognising the correct thing to do. Singhapakdi et al. (2000) also demonstrate that *corporate ethical values* can significantly affect ethical intention. Hence, this thesis will continue to explore the influence of *corporate ethical values* on the auditors’ ethical decision-making process.

3.6 Conclusion of Chapter 3

Although the KP micro-level model does support our understanding of the moral decision-making process in the auditor-client context, there is only limited empirical research to support the KP micro-level model. To address this deficiency, this chapter examines the effects of these internal, social and organisational control variables in the KP micro-level model through a review of prior literature. Finally, variables of *personal value* (ethics), *code of ethics*, *interpersonal relationships*, and *ethical climate* have considerable empirical evidence for supporting their influences on the auditors’ ethical decision-making process, and thus can be considered as determinants for auditors’ ethical decision-making. To further explain auditors’ ethics, this chapter employs Forsyth’s (1980) more comprehensive theory of *ethical ideologies*. Since this thesis focuses on the Chinese culture, the variable of *guanxi* is more frequently used to describe interpersonal relationships among people. Furthermore, *corporate ethical values* is an important component of the organisational ethical environment proposed by prior studies (e.g., Valentine, Godkin, Fleischman, & Kidwell, 2011; Woodbine, Fan, & Scully, 2012). Hence, this thesis selected the variables of *ethical ideologies*, *code of ethics*, *guanxi*, *ethical climate* and *corporate ethical values* for investigating Chinese auditors’ ethical intention to maintain their independence within auditor-client relationships.

Although the KP micro-level model has provided these useful variables for exploring the auditors’ ethical decision-making process, a thorough behavioural theory is also

required to build up a research conceptual framework. To address this limitation, the TPB, which was proposed by Ajzen (1985), is utilised as the theoretical base in this thesis. As aforementioned, the TPB has been widely applied for many countries (e.g., the US, China, Europe and Latin America) and for many disciplines (e.g., business, education, public health and psychology). The results of these applications have demonstrated the usefulness of this theory (see Chapter 2). Therefore, the variables of the KP micro-level model will be integrated with the TPB model to construct a new model, which will be presented in Chapter 4.

Chapter 4: Theoretical framework and hypotheses development

The objective of this chapter is to construct a conceptual framework and develop hypotheses for this thesis based on the literature reviews in Chapters 2 and 3. As aforementioned, the theoretical framework is based on the Ajzen's (1985) TPB model. In this model, variables of *attitudes towards behaviour*, *subjective norms* and *perceived behavioural control* are employed to explain Chinese auditors' ethical intention to maintain independence within auditor-client relationships in this thesis. Furthermore, the variables *ethical ideologies*, *code of ethics*, *interpersonal relationships*, *ethical climate*, and *corporate ethical values*, which were proposed by the KP micro-level model and discussed in Chapter 3, are also integrated for decomposing the independent variables in the TPB model. All of the variables referred to in this thesis have been reviewed in Chapters 2 and 3. Hence, a new research model is constructed based on these factors, and hypotheses within this model are developed for constructing a new research model, presented in this chapter.

4.1 The conceptual framework of this thesis

As noted previously, the TPB is the theoretical base for this thesis. In this model, variables of *behaviour* are treated as dependent variables. However, observing *behaviour* is a difficult task, as such prior studies frequently utilise *intention* as a reliable substitute for behaviour (Carpenter & Reimers, 2005), since the great majority of follow-up and longitudinal studies of human behaviour show that behaviour and intention are significantly correlated (e.g., Leonard et al., 2004; Guo, Ziao & Tang, 2009; De Cannière, De Pelsmacker, & Geuens, 2009). *Intention* is described as the subjective possibility that an individual performs a certain behaviour (Fishbein & Ajzen, 1975). In this context, Ajzen's (1985) research has convincingly demonstrated that *intention* is a valid surrogate for behaviour. *Attitudes towards behaviour*, *subjective norms* and *perceived behavioural control* are independent variables explaining an auditor's ethical intention. Moreover, the KP micro-level model, discussed in Chapter 3, also identifies variables related to an auditor's ethical decision-making process when they face pressure from their clients. These variables include *ethical ideologies*, *code of ethics*, *interpersonal relationships*, *ethical climate* and

corporate ethical values. Hence, these variables are employed to decompose the independent variables within the TPB model to further investigate an auditor's ethical intention within auditor-client relationships. The complete model is provided in Figure 4.

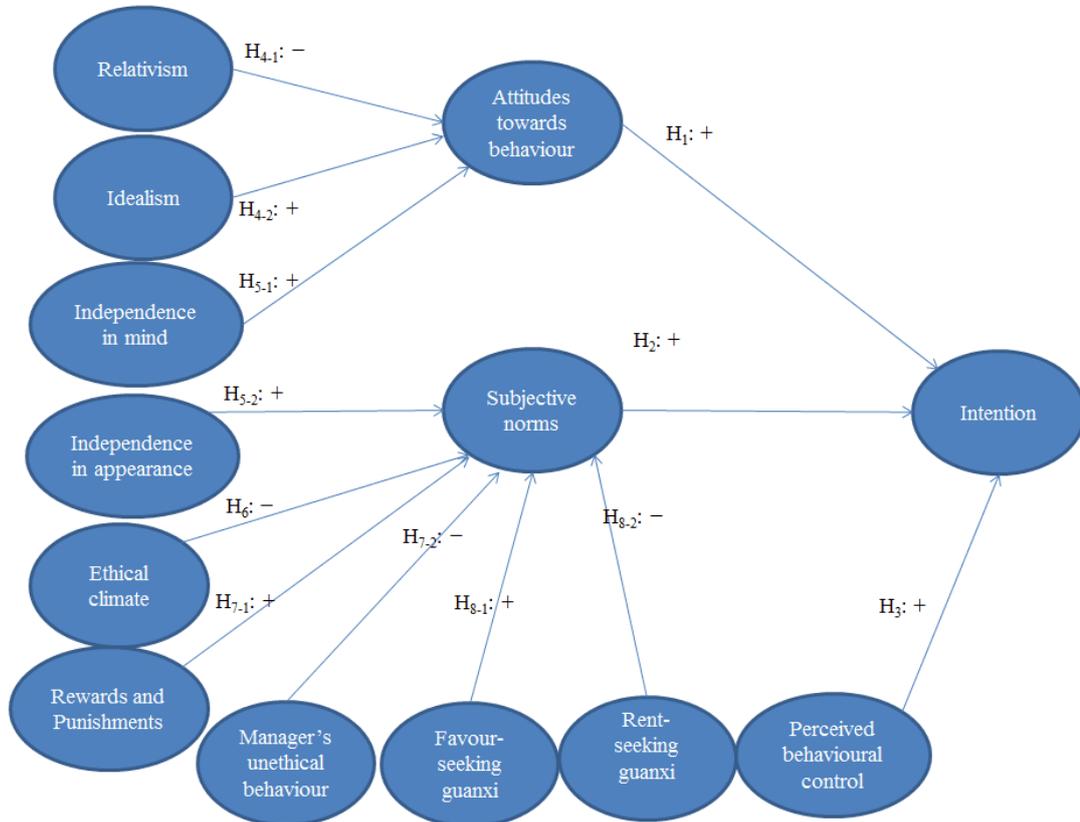


Figure 4: Hypotheses within the conceptual framework

4.1.1 TPB variables

The TPB is an extension of the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). In the TPB conceptual framework, an individual's intention is influenced by three antecedents: *attitudes towards behaviour*, *subjective norms* and *perceived behavioural control*. *Attitudes towards behaviour* refers to the individual's assessment of the behaviour, and *subjective norms* refers to the perceived influence of "others" on the individual's behavioural intention. The factor of *perceived behavioural control* which is addressed with a condition of incomplete volitional

control, is referred as an individuals' evaluation of how easy or difficult it is for them to perform a behaviour (Ajzen, 1991). These three factors are presented in Table 13.

Table 13: The TPB variables

Dependent variables	Independent variables
<i>Intention</i>	<i>Attitudes towards behaviour</i> <i>Subjective norms</i> <i>Perceived behavioural control</i>

4.1.2 The KP micro-level model variables

Other antecedents are drawn from the KP micro-level model. In this model, a series of internal and external variables affecting an auditor's ethical intention within auditor-client relationships have been proposed. After examining these variables in Chapter 3 through reviewing relevant literature (e.g., Hunt & Vitell, 1986; Victor & Cullen, 1988; Forsyth, 1980; 1992; Elango et al., 2010), the antecedents of *ethical ideologies*, *codes of ethics*, *organisational ethical context* (including *ethical climate* and *corporate ethical value*) and *interpersonal relationships* are adopted in this thesis.

4.1.2.1 Variables associated with *attitudes towards behaviour*

As shown in the Figure 4, the variables which decompose the *attitudes towards behaviour* include *ethical ideologies* (*idealism* and *relativism*), and *independence in mind*. These variables are presented in Table 14.

Table 14: The variables decomposing *attitudes towards behaviour*

Dependent variables	Independent variables
<i>Attitudes towards behaviour</i>	<i>Ethical ideologies:</i> <i>Idealism</i>
	<i>Relativism</i>
	<i>Code of ethics:</i> <i>Independence in mind</i>

Ethical ideologies are used to explain differences of moral judgements among individuals (Marques and Azevedo-Pereira, 2009). This concept can be defined with

respect to two factors: *idealism* and *relativism*. *Idealism* refers to the extent that an individual is directed by deontic principles and beliefs. Meanwhile, *relativism* represents the extent to which people deny universal ethical principles and focus on situational factors for decision-making purposes.

Code of ethics offers guidance to auditors on how to perform ethically in the auditing process (Warming-Rasmussen & Windsor, 2003). This variable also includes two basic constructs: *independence in mind* and *independence in appearance*. *Independence in mind* is defined as “the state of mind that permits the expression of a conclusion without being affected by influences that compromise professional judgement” (China code of ethics, 2011; p. 34). As shown in Figure 4, this thesis posits that this variable is linked with *attitudes towards behaviour*.

4.1.2.1 Variables associated with *subjective norms*

As shown in the Figure 4, the variables which are used to decompose *subjective norms* includes *independence in mind*, *ethical climate*, *corporate ethical values (manager’s unethical behaviour and rewards and punishments)* and *interpersonal relationships (favour-seeking guanxi and rent-seeking guanxi)*. These variables are presented in Table 15.

Table 15: The variables decomposing *subjective norms*

Dependent variables	Independent variables
<i>Subjective norms</i>	<i>Code of ethics:</i> <i>Independence in appearance</i>
	<i>Ethical climate</i>
	<i>Corporate ethical values:</i> <i>Manager’s unethical behaviour</i> <i>Rewards and punishments</i>
	<i>Interpersonal relationships:</i> <i>Favour-seeking guanxi</i> <i>Rent-seeking guanxi</i>

As pointed out earlier, another construct of *code of ethics* is *independence in appearance*, which requires auditors to avoid the facts and circumstances that could lead a third party to conclude that an auditor’s independence has been compromised.

Different from *independence in mind*, this factor is assumed to be associated with *subjective norms*. *Organisational ethical context* consists of two parts: *ethical climate* and *corporate ethical values*. *Ethical climate* consists of “the prevailing perceptions of typical organisational practices and procedures that have ethical content” (Victor & Cullen, 1988, p. 101). *Corporate ethical values* includes two dimensions: *manager’s unethical behaviour* and *rewards and punishments*. *Guanxi* is utilised to reflect the Chinese perception of *interpersonal relationships* (Su et al., 2003). It can be classified into two categories: *favour-seeking* and *rent-seeking guanxi*. *Favour-seeking guanxi* is culturally rooted and related to behaviour of sharing resources with other people (Su et al., 2003). However, different from *favour-seeking guanxi*, *rent-seeking guanxi* is generally related to corruption and bribery, since this type refers to power and benefit exchanges (Su et al., 2003).

Therefore, the TPB model will be decomposed by the variables of *ethical ideologies* (*idealism* and *relativism*), *code of ethics* (*independence in mind* and *independence in appearance*), *interpersonal relationships* (*favour-seeking* and *rent-seeking guanxi*), *ethical climate*, and *corporate ethical values* (*manager’s unethical behaviour* and *rewards and punishments*). The causal relationships between these variables and the TPB variables are developed in the following sections.

4.2 Hypotheses development

The aim of the current study is to investigate Chinese auditors’ perceptions and intentions relating to the maintenance of audit independence specific to auditor-client relationship situations. Hypotheses are developed to address the research questions. The hypotheses are discussed in the following section.

4.2.1 Hypotheses within the TPB model

In the TPB conceptual framework, *intention* is the dependent variable, and is affected by the variables *attitudes towards behaviour*, *subjective norms* and *perceived behavioural control*. *Attitudes towards behaviour* can be defined as an evaluation of

favourable or unfavourable perceptions of certain behaviours involved in ethical issues (Ajzen & Madden, 1986) According to Fishbein and Ajzen (1975), individuals are more likely to perform a certain behaviour if their attitude towards this certain behaviour is positive. A large number of studies in contexts other than auditing (e.g., Randall, 1994; Carpenter & Reimers, 2005; Buchan, 2005; Lee & Chen, 2010; Bagley et al., 2012; Wu et al., 2015) demonstrate positive associations between *attitudes towards behaviour* and *intention*. For instance, Buchan (2005) examines public accountants' ethical decision-making and finds that attitude clearly has an influence on the individual's intention. Similarly, Carpenter and Reimers (2005) investigate corporate manager's ethical or unethical decision-making. The results show that these managers' attitudes can significantly influence ethical intention. Armitage and Conner (2001) conduct a literature review of applications of the TPB model. The results also suggest that *attitudes towards behaviour* is the strongest predictor for *intention*. In this thesis, for Chinese auditors who have positive attitudes towards ethical issues related to independence, the TPB theory predicts that these Chinese auditors will be more likely to maintain their independence. Hence, these results suggest the following hypothesis:

H₁: Chinese auditors' *attitudes towards behaviour* is positively associated with their *intention* within the auditor-client context.

Subjective norms is considered a social factor influencing an individual's intention. It is the perception about the opinions of significant others as to whether or not they ought to engage in the behaviour (Carpenter & Reimers, 2005). Since the favourable views of significant others is important to the individual, they must evaluate them before acting. Fishbein and Ajzen (1975) suggest that the more individuals are aware that significant others consider they should engage in certain behaviour, the more likely they will perform this behaviour. In this thesis, Chinese auditors' intentions to maintain independence within auditor-client conflict relationship situations are examined. Therefore, *subjective norms* is identified as the influence of the client, colleagues and audit partners in the firms. Kleinman and Palmon (2001) also suggest that these influences could affect auditors' intention to maintain their independence. The empirical findings for the association between *subjective norms* and *intention* are somewhat mixed. The results of several prior studies (e.g., Chang, 1998; Buchan,

2005; Huang, Davison, & Gu, 2008; Kim, Ham, et al., 2013) cannot support this association. Trafimow and Finlay (1996) conclude that *subjective norms* is the weakest predictor for *intention*. However, other prior studies (e.g., Carpenter & Reimers, 2005; Bagley et al., 2012; Dalton et al., 2013) find that *subjective norms* has a positive significant influence on an individual's intention. A recent research, Tan et al. (2015), is concerned with Chinese auditing and accounting professionals and supports the positive association between *subjective norms* and *intention*. Lee and Green (1991) also suggest that *subjective norms* cannot be ignored. Given that most of the TPB applications reviewed in Chapter 2 supports this association (113 out of 149), the following hypothesis is proposed:

H₂: Chinese auditors' perception of *subjective norms* is positively associated with their *intention* within the auditor-client context.

Perceived behavioural control is the individuals' evaluation of how easy or difficult it is for them to perform a behaviour (Ajzen, 1991). Bandura (1982) also refers to *perceived behavioural control* as "... concerned with judgements of how well one can execute courses of action required to deal with prospective situations" (p. 122). An individuals' belief about their ability to conduct an appropriate action becomes a function of their intentions (Madden, Ellen, & Ajzen, 1992). Other studies (e.g., Bandura, Adams, & Beyer, 1977; Bandura, 1991; Chang, 1998; Henle et al., 2010) also show that *intention* could be strongly affected by self-confidence in their ability to perform the behaviour. As discussed in Chapter 2, 110 prior business studies have demonstrated the influence of *perceived behavioural control* on individuals' intention. Specific to the accounting context, Gibson and Frakes (1997) and Buchan (2005) also provided empirical evidence to support this positive relationship between *intention* and *perceived behavioural control* in contexts other than the auditor-client context. Thus, the foregoing lead to the following hypothesis:

H₃: Chinese auditors' *perceived behavioural control* is positively associated with their *intention* within the auditor-client context.

4.2.2 Hypotheses of extension of the TPB to the KP micro-level model

As discussed in Chapter 2, decomposing the variables within the TPB is the main focus for developing the TPB model in this thesis. New variables can be integrated with the independent variables within the TPB to explain an individual's intention within a specific context, specifically the auditing context. As the aim of this thesis is to investigate the Chinese auditor's ethical intention within the auditor-client relationship and context, the variables concerned with this issue can be applied to decomposing the TPB variables. As discussed in Chapter 3, the KP micro-level model explores variables influencing the auditors' ethical decision-making process when they face pressure from clients. After discerning these variables through reviewing empirical findings in prior literature, this thesis identifies the variables *ethical ideologies*, *codes of ethics*, *organisational ethical context* and *interpersonal relationships* as determinants for an auditor's ethical intention within the auditor-client context. Thus, hypotheses among the TPB variables and the KP micro-level variables follow.

4.2.2.1 Ethical ideologies and *attitudes towards behaviour*

Ethical ideologies is defined as "a system of ethics used to make moral judgements, which offers guidelines for judging and resolving behaviour that may be ethically questionable" (Henle et al., 2005, p. 219). Prior studies (e.g., Rest, 1986; Kohlberg, 1986) attempt to explore variances in individuals' ethical judgements, whereas Forsyth (1980) proposes a theory based on two moral constructs occurring within the process of moral judgement (*relativism* and *idealism*), as suggested by Schlenker and Forsyth (1977). Forsyth's (1980) theory is recommended by Hunt and Vitell (1986), since Forsyth's (1980) study adopts a mixed deontological-teleological system. In Forsyth's theory, *idealism* refers to the extent that individuals are directed by universal principles, while *relativism* refers to the extent to which individuals reject deontic moral rules. Studies such as those by Fraedrich and Ferrell, (1992), Fritzsche and Becker (1984) and Hunt and Vitell (1986) show that different ideologies can influence judgement or attitudes, although they persist as variations of Forsyth's original taxonomy (Forsyth, 1980). Maio, Olson, Bernard, and Luke (2003) also point out that attitudes encompass values and ideologies. Shafer's (2008) China study reveals no

significant influence of *relativism* and *idealism* on auditors' intentions; however, the results indicate that individual ideology could be associated with intentions under specific conditions. Woodbine et al. (2012) examines the Chinese auditor's *ethical ideologies* and finds that *relativism* and *idealism* are predictors of an individual's intentions. Other Western studies (Barnett et al., 1996; Douglas et al., 2001; Davis, Andersen, & Curtis, 2001; Liu, 2013) also show that *relativism* negatively affects an individual's attitude, while Vitell and Hidalgo (2006) report that *idealism* would be positively associated with an individual's attitude towards a behaviour. Based on the above discussion the following hypotheses are proposed:

H₄₋₁: Chinese auditors' *relativism* orientation is negatively associated with their *attitudes towards behaviour* within the auditor-client context.

H₄₋₂: Chinese auditors' *idealism* orientation is positively associated with their *attitudes towards behaviour* within the auditor-client context.

4.2.2.2 Code of ethics and subjective norms

Stevens et al. (2005) examine the financial executive's decision-making and find that an association exists between perceptions of *code of ethics* and *subjective norms* or social pressures. Leonard et al. (2004) also find that ethical codes are associated with the norms or culture in an organisation. Similarly, Yu (2011) finds that a legal system including appropriate rules could affect auditors' behaviour. Fan, Woodbine, and Cheng (2013) also examine auditor perceptions of independence issues associated with professional codes of ethics, and find that auditors stress the significance of codes and their performance is also affected by the observations of their colleagues. Thus, Chinese auditors' awareness of the *code of ethics* is expected to be associated with their belief of the importance of industry expectations.

As discussed earlier, a core value of published codes of ethics for accountants is audit independence. It includes *independence in mind* and *independence in appearance*. The first component requires auditors to maintain objectivity when they perform professional services (i.e., not allowing circumstances to distract them). *Independence in mind*, on the other hand, *relies* on other's perceptions, and means that auditors

should be and are perceived as independent by a third party. The proper observance of both aspects of independence should result in positive associations with intentions influenced by attitudes or *subjective norms* (for appearance) respectively. According to the prior research, Somers (2001) argues that *code of ethics* is not directly associated with attitudes, whereas it could help to reduce unethical behaviours. However, more recent researches reveal the positive significant influences of *code of ethics* on *attitudes towards behaviour* and *subjective norms* separately. For instance, McKinney et al. (2010) find that a code of ethics can significantly influence an employee's ethical attitudes. Further, Davidson and Stevens (2013) also indicate that the influence of a code of ethics on a manager's ethical behaviour can be mediated by norms within firms. Thus, *code of ethics* can influence both *attitudes towards behaviour* and *subjective norms*. As pointed out earlier, a code of ethics includes elements of *independence in mind* and *independence in appearance*. *Independence in mind* focuses on auditors themselves, whereas *independence in appearance* is more likely to associate with situational factors. Thus, it can be assumed that *independence in mind* should be related to an auditor's attitudes, while *independence in appearance* should be associated with situational variables, i.e., *subjective norms*, which represent the desire to comply with important referents (Randall & Gibson, 1991). Fan et al. (2013) further indicate that auditors' perceptions of codes of ethics would be affected by the observations of their colleagues. Thus, it seems that *independence in appearance*, which reflects other's opinions, could affect the auditor's motivation to comply with others (i.e., *subjective norms*). Hence, the hypotheses presented for testing as follows:

H₅₋₁: Chinese auditors' perceived *independence in mind* is positively associated with *attitudes towards behaviour* within the auditor-client context.

H₅₋₂: Chinese auditors' perceived *independence in appearance* is positively associated with *subjective norms* within the auditor-client context.

4.2.2.3 Organisational ethical context and *subjective norms*

In current business ethics literature, organisational ethical schemas permit at least two dimensions: *ethical climate* (e.g., Victor & Cullen, 1987; 1988; Woodbine, 2006) and *corporate ethical values* (e.g., Hunt et al., 1989; Fan, Woodbine, & Scully, 2012b; Woodbine et al., 2012). Victor and Cullen (1988) define *ethical climate* as "the

prevailing perceptions of typical organisational practices and procedures that have ethical content” (p. 101). They also identify nine possible configurations of *ethical climate* based on two dimensions: ethical criterion (i.e., egoism, benevolence and principle) and loci of analysis (i.e., individual, local and composition). These nine configurations are shown in Figure 5.

		Individual	Local	Cosmopolitan
ETHICAL CRITERION	Egoism	Self-Interest	Company Profit	Efficiency
	Benevolence	Friendship	Team Interest	Social Responsibility
	Principle	Personal Morality	Company Rules and Procedures	Laws and Professional Codes

Figure 5: Theoretical bases for *ethical climate* types

Note: Adapted from Victor and Cullen (1988)

Based on these constructs, only six of these nine types (professionalism, caring, rules, instrumentalism, efficiency and independence) are identified in both Victor and Cullen’s (1987) and Fritzsche’s (2000) studies. These *ethical climate* types and their theoretical bases are presented in Table 16.

Table 16: Ethical climate types

<i>Ethical climate types</i>	Theoretical bases
Professionalism	Laws and professional code
Caring	Friendship and team interest
Rules	Rules and procedures
Instrumentalism	Self-interest
Efficiency	Efficiency
Independence	Personal morality

Note: Adapted from Woodbine (2006)

The association between the *ethical climate* types and *subjective norms* is also explored by prior studies (e.g., Barnett & Vaicys, 2000, Buchan, 2005, Woodbine, 2006). The results are somewhat mixed. Wimbush and Shepard (1994) indicate that a relationship exists between *ethical climate* and individual behaviour, since *ethical climate* had an influence on the norms in the workplace (cited in Woodbine, 2006). Barnett and Vaicys (2000) also indicate that *ethical climate* could affect organisational norms and practices. Moreover, Woodbine (2006) further examines the influence of specific types of *ethical climate* on *subjective norms* in the Chinese financial sector. The results indicate that a “rules” climate positively affects the norms in these organisations, while an “independence” climate is negatively associated with organisational norms. Victor and Cullen (1988) also indicate that “caring” climates are positively associated with social norms in organisations, and Buchan (2005) finds that “instrumental” climates can negatively affect the individual’s intentions, indicating a negative relationship between “instrumental” climate and *subjective norms*. Similarly, “professionalism” climates can be postulated to be positively associated with organisational norms (Victor & Cullen, 1988), as the dominant climate type. Woodbine (2006) further suggests the “efficiency” climate negatively affected organisational norms, because “efficiency” is similar to the factor “independence” in his study. According to the results of these studies, it can be assumed that *ethical climate* could significantly affect *subjective norms*, though results are mixed. However, as Woodbine (2006) suggested, Chinese organisations are featured with an “instrumental” *ethical climate*. Considering that Buchan (2005) indicates that an “instrumental” *ethical climate* has a negative influence on *subjective norms*, the

hypothesis about the relationship between *subjective norms* and *ethical climate* is developed as follows:

H₆: Within Chinese audit firms, perceived *ethical climate* is negatively associated with *subjective norms*.

Corporate ethical values is another important aspect of ethical conduct within organisations. Trevino, Prince, and Hubbard (1998) define *corporate ethical values* as a subset of formal and informal behaviour control systems including culture, beliefs and norms within an organisation. They further indicate that *corporate ethical values* would influence an employee's ethical decision-making process, since it affects thoughts and feelings, and guides behaviour. Trevino et al. (1998) and Hunt et al. (1989) further summarise *corporate ethical values* into two dimensions: *manager's unethical behaviour* and *rewards and punishments*. The first dimension refers to the manager's attitudes towards the unethical behaviour existing in their work places. The second dimension is concerned with the measures for top managers coping with unethical behaviour. A large number of studies has explored the influences of the *corporate ethical values* on an individual's ethical decision-making process, though a few of them refer to the relationships between *corporate ethical values* and *subjective norms*. For example, Valentine et al. (2011) find that the perceived ethical values are associated with the "work environment". Therefore, *subjective norms* are expected to be influenced by the individuals' perception of *corporate ethical values*. Similarly, Fan et al. (2012b) find that *rewards and punishments* could positively affect a manager's attitudes towards the application of codes of ethics in the firm; meanwhile, *manager's unethical behaviour* has the opposite effect on manager's ethical attitudes. This result indicates that *rewards and punishments* could positively affect *subjective norms* and *manager's unethical behaviour* could negatively affect *subjective norms*. Woodbine et al. (2012) also examine the influence of *manager's unethical behaviour* and *rewards and punishments* on Chinese auditor's ethical orientations. Results are consistent with Fan et al. (2012b) and See, Fan, and Woodbine (2014) in that *rewards and punishments* has a positive influence and *manager's unethical behaviour* has a negative influence on attitudes of senior auditors, who demonstrate significant influence in the firms. Given the anticipated multidimensional nature of the

relationships at this juncture, the following generalised hypotheses are presented subject to further interpretation:

H₇₋₁: Within Chinese audit firms, perceived *rewards and punishments* is positively associated with *subjective norms*.

H₇₋₂: Within Chinese audit firms, perceived *manager's unethical behaviour* is negatively associated with *subjective norms*.

4.2.2.4 Interpersonal relationships and subjective norms

Clients play a significant role in maintaining auditor-client relationships because they exercise the power to hire and fire the auditors (Kleinman & Palmon, 2001). Close interpersonal relationships can lead to familiarity threats and affect independence. In the Chinese cultural context, interpersonal relationships are described as *guanxi*. Fan, Woodbine, and Scully (2012c) argue that *guanxi* forms the basis of personal networks among Chinese at all levels and involves significant emotive elements that require attention within social interactions. Attitudes and judgements are affected by these cultural norms. Prior studies (e.g., Chen & Francesco, 2003, Chen, Chen & Xin, 2004, Hwang and Blair Staley, 2005; Han et al., 2012) also investigate the association between *guanxi* and *subjective norms*. Chen and Francesco (2003) indicate that societal norms in China are the result of particular ties (*guanxi*), and Chen et al. (2004) also suggests that *guanxi* is heavily dependent on social norms. Similarly, Han et al. (2012) applied TRA to interpret the development of *guanxi* between students and their supervisors. Further, Hwang and Blair Staley (2005) investigate the influence of *guanxi* on independence, based on reviewing financial scandals that occurred in China and the US. The results of that study showed that *guanxi* is related with societal norms in China. Although these studies explored the association between *guanxi* and *subjective norms*, they failed in distinguish between the positive and negative aspects of *guanxi* based moral behaviour.

Su and Littlefield (2001) explore *guanxi* and categorise *guanxi* into two constructs: *favour-seeking guanxi* and *rent-seeking guanxi*. Su et al. (2003, p. 310) state that *favour-seeking guanxi* is “culturally rooted ... and builds on interdependence and the

sharing of scarce resources in a collectivist culture”. The primary objective of *favour-seeking guanxi* is to exchange favours and adjust for prior obligations with each other. *Rent-seeking guanxi* differs from *favour-seeking guanxi* in that this type refers to power and benefit exchanges (Su et al., 2003). Han et al. (2012) indicate that *guanxi* between supervisor and subordinate, which is similar to *favour-seeking guanxi*, is positively associated with societal norms in China. Fan et al. (2012c) also indicate that *favour-seeking guanxi* could be positively associated with *subjective norms*, since *favour-seeking guanxi* is likely to impact on the individual’s ethical judgements. On the other hand, *rent-seeking guanxi* could be negatively associated with *subjective norms*, due to *rent-seeking guanxi* orientations affecting an individual’s judgements and because it is not uniformly tolerated by all parties (i.e., it inevitably overlooks the rights of all parties to a transaction). Therefore, the hypotheses are developed as follows:

H₈₋₁: For Chinese auditors, their *favour-seeking guanxi* orientation is positively related with *subjective norms*.

H₈₋₂: For Chinese auditors, their *rent-seeking guanxi* orientation is negatively related with *subjective norms*.

4.3 Conclusion of Chapter 4

This chapter develops a conceptual framework based on the TPB model and the KP micro-level model. Chinese auditors’ ethical intention is posited as the dependent variable and is influenced by their *attitudes towards behaviour*, *subjective norms* and *perceived behavioural control*. These independent variables are also affected by *relativism*, *idealism*, *independence in mind*, *independence in appearance*, *ethical climate*, *manager’s unethical behaviour*, *rewards and punishments*, *favour-seeking guanxi* and *rent-seeking guanxi*. Hypotheses were developed in this chapter for testing the following associations:

1. Chinese auditors’ intention and their *attitudes towards behaviour*, *subjective norms*, and *perceived behavioural control* (H₁ to H₃).

2. Chinese auditors' *attitudes towards behaviour* and their *relativism* and *idealism* orientation, and their perceptions of *independence in mind* (H₄₋₁, H₄₋₂, and H₅₋₁).
3. Chinese auditors' perceived *subjective norms* and their perception of *independence in appearance*, *ethical climate*, their perceived *manager's unethical behaviour*, *rewards and punishments*, and *favour-seeking* and *rent-seeking guanxi* orientations (H₅₋₂, H₆, H₇₋₁, H₇₋₂, H₈₋₁, H₈₋₂).

The research methodology is presented in the following chapter.

Chapter 5: Research methodology

The research methodology for the thesis is presented in this chapter. This includes the discussion of the research method, sample selection process and the measure for each variable in the research model, i.e., the conceptual framework (Figure 1), which is presented in Chapter 4. According to Grove and Savich (1979), four factors should be considered in an attitude based research design. These are “scale and questionnaire design, sample selection, analysis of results, and interpretation of results” (p. 523). The scale and questionnaire design and sample selection are the focus of this chapter, while analysis and interpretation of results will be presented in Chapter 6. The discussion of research methodology and measurement issues are organised as follows. Section 5.1 introduces the research method of this thesis, including research design, survey instruments, sample selection, and survey procedures. Section 5.2 discusses the scales utilised for measuring variables in the conceptual frameworks, which includes construct validity and reliability tests. Section 5.3 concludes the main findings of this chapter.

5.1 Research method

O’Fallon and Butterfield (2005) indicate that a survey method is the most widely applied method to collect data in the TPB research. The review of TPB studies in Chapter 2 also supports this statement (i.e., 130 out of 149 studies use a survey method). Considering one objective of this thesis is to extend the TPB model to the auditing context, a survey method, including both online and onsite, is adopted in this thesis. The survey process includes survey instrument design, sample selection and procedures for administering the survey.

5.1.1 Survey instrument design

The survey instrument used in this thesis includes three parts. The first part is a cover letter (English version is included at Appendix 1; Chinese version is included at Appendix 3) which introduces the research objectives and significance of this thesis

and the rights of respondents. It also reminds respondents that their answers will remain anonymous and confidential. Respondents are advised that their participation is voluntary, and they can withdraw without giving any reasons at any time. Furthermore, the contact details of researchers are also provided on the cover letter. They can contact the researchers if they have any doubts about survey process. Finally, the cover letter points out that this survey has received approval from the Curtin University Human Research Ethics Committee. There is no significant potential harm to respondents.

The second component of instrument is a self-administered questionnaire (English version is included at Appendix 2; Chinese version is included in Appendix 4). This questionnaire consists of five sections. The first section contains respondent's background information including *gender, age, education, experience, firms* and *region*. These are used as control variables in this thesis. Other sections contain the questions which are used to measure the variables in the research model. For example, Section 2 has 20 questions which are used to measure Chinese auditors' *ethical ideologies*. Section 3 includes seven questions reflecting Chinese auditors' perception of *code of ethics*. Section 4 has 12 questions which are used to measure Chinese auditors' perception of *interpersonal relationships*. Section 5 includes 11 questions which are associated with *organisational ethical context*, including six items for *ethical climate* and five items for *corporate ethical values*. The validity and reliability of these questions and related measures is discussed in details in Section 5.2 below.

The variables in the TPB model are measured through an auditing case in the final part of instrument. The case is adopted from Arens and Loebbeck (2000). Herron and Gilbertson's (2004) study demonstrates the efficacy and validity of this case. The respondents are required to answer thirteen questions after they completed reading the case. The first ten questions are used to measure three variables in the TPB model: question Q1, which includes four sub-question, is related to *attitudes towards behaviour*, questions Q2 to Q4 are associated with *subjective norms* and questions Q5 to Q7 are concerned with *perceived behavioural control*. Ethical intention is the dependent variable of this thesis, and is measured by questions Q8 to Q10

5.1.2 Sample selection

Grove and Savich (1979) indicate that consideration of sampling adequacy is to avoid selection bias and to prevent “interaction effects among selection and experimental variables” (p. 527). They further suggest that selected samples should have demographics or characteristics which represent universal situations. This thesis uses a representative selection of practicing Chinese auditors as the research target. As Redfern and Crawford (2004) suggest, cultures vary significantly across China and auditors should be recruited from different cities, including those employed in local and international accounting firms located in southern, eastern, western, northern and central regions of China.

5.1.3 Procedure of survey

As discussed previously, the survey has been conducted in cities in various parts of China. These cities include Shenzhen, Zhengzhou, Beijing, Jinan, Taian, Xian and Hefei. Investigators adopt a snowball recruitment method to recruit Chinese auditors to participate in this survey. Before conducting the survey, the author contacted colleagues who work as officers in accounting firms to ask their colleagues to participate in this survey. Then the printed survey instruments are distributed to each participant. Participants are required to read the information sheet before they answer the questionnaires. At the end of the survey, the questionnaires are collected by the officers and then retrieved by the author. Participants can also choose an online survey. The survey link is sent to the participants. They can answer these questionnaires through their computers or smart mobile phones.

One thousand survey instruments were distributed online and onsite. In total 366 responses were received, including 245 internet-based (37.7% response rate) and 121 paper-based (34.6% response rate), giving an overall responding rate of 36.6%. Fan (2008) suggests that responses that are incomplete or missing more than 10% of the data should be excluded from the samples. Thus, ten questionnaires were deleted.

Investigators also perceive that there may be a potential response bias in the survey process, since the participants are recruited through a snowball method. Some

respondents may be reluctant to take part in this survey, but they consider that refusing the request from their friends will have negative influence on their relationships. Thus, these respondents may pay insufficient attention to the survey and not answer questions seriously. Hence, a further check is needed to ensure that respondents answered all the questions carefully. If answers on a questionnaire have no changes, this indicates that the respondent did not answer seriously (Fan, 2008). Thus, this questionnaire will be deleted from the sample. For example, one participant in Shenzhen city selects “5” in all scales, so this response is not included in the sample. Furthermore, if two questionnaires in one firm show the same answer, this indicates that one of these two respondents did not take survey seriously and just copied answers from others (Fan, 2008). This will be deleted from the sample. Results show that some respondents did not answer the survey questions appropriately. Hence, the final sample includes 306 usable responses; a response rate of 30.6%. The distribution of the responses is shown in Table 17.

Table 17: Results of the distribution of the responses

Region	Distribution	Responses	Response rate (%)	Useful responses	Useful response rate (%)
Northern part of China	200	175	87.5	169	84.5
Southern part of China	200	64	32.0	14	7.0
Eastern part of China	200	50	25.0	46	23.0
Central part of China	200	49	24.5	49	24.5
Western part of China	200	28	14.0	28	14.0
Total	1000	366	36.6	306	30.6

5.2 Measures

In this section, the measurement model of each variable in the research model is discussed. It includes the construct validity and reliability tests of each measure. The validity of each construct is an important issue for assessing measurements (Cooper & Schindler, 2003). Through analysing the validity of a scale, researchers can understand the ability of this scale to evaluate the target variable (Serkanan, 2000). In this thesis,

a Confirmatory Factor Analysis (CFA) method through the AMOS software is employed to examine the goodness-of-fit of measurements of independent variables with the data. To evaluate overall model fit, various model fit statistics and indices have been developed. After investigation and comparison of indices, Wang, Hefetz, and Liberman (2017) have recommended five model fit indices, including χ^2/df (< 3 , Kline, 2005), goodness-of fit index (GFI) (≥ 0.90 , Hair, Black, Babin, Anderson, & Tatham, 2006), adjusted goodness-of fit index (AGFI) (≥ 0.80 , Marsh, Balla, & McDonald, 1988), confirmatory fit index (CFI) (≥ 0.90 , Bentler, 1990) and root mean square error of approximation (RMSEA) (< 0.80 , Hair et al., 2006). Then the measurements are modified based on Medication Indices (MI) and standard residual covariance (larger than 2) (Jöreskog and Sörbom, 1993). Reliability is also a crucial issue to assess the quality of measurements. Serkaran (2000) suggests that reliability can reveal the accuracy of measurement and includes stability and consistency of measurement. In this thesis, reliability is examined using an internal consistency test. The main index for internal consistency test is Cronbach's Alpha. This index should be larger than 0.5 (Serkaran, 2000). Therefore, validity and reliability of each measurement for assessing variables is also discussed in this section.

5.2.1 Ethical ideologies

Chinese auditors' *ethical ideologies* are measured using a widely used typological scale, Forsyth's (1980) Ethical Position Questionnaire. The scale has two dimensions, *idealism* and *relativism*, with 20 original items. *Idealism* is measured by questions 1 to 10, and *relativism* is measured by questions 11 to 20 (included at Appendix 2). This measure has been widely applied in a considerable amount of studies, such as Fan (2008) and Woodbine et al. (2012). In this thesis, participants are required to give their level of agreement based on a 9-point Likert scale, ranging from (1) strongly disagree to (9) strongly agree. For each respondent, their ethical ideologies score is computed by summarising the scores of items in the dimensions of *idealism* and *relativism*. A higher score in *idealism* or *relativism* indicates that respondent has strong beliefs about this dimension. The validity of Forsyth's scale in this study is examined using CFA. Based on the criteria shown in Table 18 Panel A, the results indicate a very poor fit for the original model. Thus, a model re-specification is applied to determine a better

model representing the same data. As mentioned above, the indices of significant Medication Indices (MI) and standard residual covariance (S.R.C., larger than 2) (Jöreskog and Sörbom, 1993) are utilised as criteria to re-specify the model. The results from the original model show that the standard residual covariance for the following items 6, 7, 8, 10 in the idealism and items 2, 3, 4, 9, and 10 in the relativism are larger than the criterion of 2. Results suggest that the sample data is not fit in the model well. Thus, the CFA is conducted again, and the results (shown in Table 18 Panel A) suggest that the shorter 11-item scale represents the data perfectly. The new version of ethical ideologies and reliabilities of idealism and relativism are shown in Table 18 Panel B. The results of internal consistency tests reveal that this measurement has high reliability. Cronbach's Alpha for idealism is 0.895, and for relativism is 0.825. This result indicates that these two scales have high reliability.

Table 18: Measurements of *ethical ideologies*

Panel A: Results of measurement model test			
	Original model	Modified model	Acceptable values
χ^2	902.652	63.181	
χ^2/df	5.341	1.541	< 3 (Kline, 2005)
GFI	0.735	0.963	≥ 0.90 (Hair et al., 2006)
AGFI	0.671	0.940	≥ 0.80 (Marsh et al., 1988)
RMSEA	0.119	0.042	< 0.80 (Hair et al., 2006)
CFI	0.789	0.986	≥ 0.90 (Bentler, 1990)

Panel B: Results of reliability test and items left in the model	
<i>Idealism</i>: Cronbach's Alpha 0.895	<i>Relativism</i>: Cronbach's Alpha 0.825
One should make certain that his/her actions never intentionally harm another even to a small degree	There are no ethical principles that are so important that they should be part of any code of ethics
Risks to another should never be tolerated, irrespective of how small the risks might be	Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual
Potential harm to others is always wrong, irrespective of the benefits to be gained	Moral standards are personal rules which indicate how a person should behave, and are not to be applied in judging others
One should never psychologically or physically harm another person	Ethical considerations in interpersonal relations are so complex that individuals should be allowed to form their own codes
One should not perform an action which might in any way threaten the dignity and welfare of another individual	Rigidly codifying an ethical position that prevents certain types of actions could stand in the way of better human relations and adjustment
It is never necessary to sacrifice the welfare of others	

5.2.2 Code of ethics

The *code of ethics* is examined based on two dimensions: *independence in mind* and *independence in appearance*. Based on these two dimensions, Fan et al. (2012b) develop a 7-item scale for examining Chinese auditors' perceptions of *code of ethics*. The first three items are concerned with *independence in mind*, and the other four items are concerned with *independence in appearance*. The scale is tested again by using Australian data, i.e., Australian accountants (Fan et al., 2013) and Chinese accounting students (Kong, Fan, Chen, Jiang, & Taylor, 2017). The results suggest it is a stable scale for measuring auditors' perceptions of audit independence. For this reason, this scale is used to measure Chinese auditors' perceptions of *code of ethics*. The respondents are asked to read the seven item statements then give their agreement on each item based a 9-point Likert scale ranging from (1) strongly disagree to (9) strongly agree. For each respondent, the scores of their perceptions of *code of ethics* are computed by adding the scores in the dimensions of *independence in mind* and *independence in appearance*. A higher score indicates that auditors perceived more issues with audit independence in codes of ethics. CFA is employed to examine the validity of Fan et al.'s (2012b) original 7-item scale. However, the results (see Table 19 Panel A) suggest that the data of this study cannot provide a satisfactory fit for Fan et al.'s (2012b) model. Re-specification of items in the original scale is necessary based on modification indices and standardised residual covariance. The third item "resisting pressure from clients" (S.R.C. max = 2.884) in *independence in mind* and the third item "conflicts interest" (S.R.C. max = 4.456) in *independence in appearance* are deleted, because these two items represent likely misspecification of the model. Fan et al. (2013) also deleted these two items in their study of Australian and Chinese accountants. CFA is conducted again to examine the shorter version of Fan et al.'s (2012b) scale. The results (see Table 19 Panel A) indicate that the new model provides a satisfactory fit for the data. This 5-item version of *code of ethics* and reliabilities of the two dimensions are shown in Table 19 Panel B. The results of internal consistency indicate that the reliability of this measurement is acceptable (Cronbach's Alpha for *independence in mind* is 0.907, and for *independence in appearance* is 0.758).

Table 19: Measurements of *code of ethics*

Panel A: Results of measurement model test			
	Original model	Modified model	Acceptable values
χ^2	126.263	8.550	
χ^2/df	9.713	2.137	< 3 (Kline, 2005)
GFI	0.888	0.989	≥ 0.90 (Hair et al., 2006)
AGFI	0.758	0.958	≥ 0.80 (Marsh et al., 1988)
RMSEA	0.169	0.061	< 0.80 (Hair et al., 2006)
CFI	0.904	0.995	≥ 0.90 (Bentler, 1990)

Panel B: Results of reliability test and the items left in the model	
<i>Independence in mind</i>: Cronbach's Alpha	<i>Independence in appearance</i>: Cronbach's Alpha
0.907	0.758
Be independent in performing an audit	Avoid an employment offer from clients
Act with integrity and objectivity	Avoid dependency from certain clients
	Avoid a close relationship with client

5.2.3 Organisational ethical context

This section discusses *ethical climate* and *corporate ethical values*. To assess *ethical climate* perceived by the employees in the bank industry in China, Woodbine (2006) uses a short form version, which has six identifiable items based on Victor and Cullen's (1987) Ethical Climate Questionnaire. The results of factor analysis show that this version has high reliability and validity. Therefore, this study adopts Woodbine's (2006) scale to measure the *ethical climate* perceived by Chinese auditors. Six items are represented in the measurement, representing climate type of "professionalism", "rules and procedures", "instrumentalism", "independence", "efficiency" and "caring". Respondents are required to show their level of agreement based on a 9-point Likert scale, ranging from (1) strongly disagree to (9) strongly agree. The scores for Chinese auditors' perceived *ethical climate* are computed by adding the scores of all items. However, CFA is performed before computing the average score of this variable. Originally, the CFA results (Table 20 Panel A) suggest a very poor fit in this model based on the assessment criteria. To get a better fit model representing the same data, the third item of "instrumentalism" (S.R.C. max = -3.803) and fourth item of "independence" (S.R.C. max = 6.372) are deleted, according to the significant modification indices and standardised residual covariance. CFA is conducted again, and the final results (Table 20 Panel A) indicate that this shorter version represents the most appropriate model for Chinese auditors. Furthermore, the results of internal

consistency test (Cronbach's Alpha 0.741) indicate that this scale has high reliability. The scale for measuring *ethical climate* and its reliability are shown in Table 20 Panel B.

Table 20: Measurements of *ethical climate*

Panel A: Results of measurement model test			
	Original model	Modified model	Acceptable values
χ^2	416.737	2.266	
χ^2/df	46.304	2.266	< 3 (Kline, 2005)
GFI	0.727	0.996	≥ 0.90 (Hair et al., 2006)
AGFI	0.363	0.963	≥ 0.80 (Marsh et al., 1988)
RMSEA	0.385	0.064	< 0.80 (Hair et al., 2006)
CFI	0.448	0.998	≥ 0.90 (Bentler, 1990)

Panel B: Results of reliability test and the items left in the model
<i>Ethical climate</i>: Cronbach's Alpha 0.741
People here are expected to comply with the law and professional standards
Everyone here is expected to follow organisational rules and procedures
The most efficient way is the right way in this organisation
The major consideration here is what is best for everyone in the organisation

As a further test, Chinese auditors' perceptions of *corporate ethical values* are measured using Hunt et al.'s (1989) Corporate Ethical Value Scale. This scale has two dimensions: *manager's unethical behaviour* and *rewards and punishments*. Two items are used to measure *manager's unethical behaviour* while three items are used to measure *rewards and punishments*. Since this measurement has also been demonstrated to have high reliability and validity in prior studies (e.g., Hunt et al., 1989, Shafer, 2008 and Woodbine et al., 2012), this study adopts this scale. Respondents' answers for items are also based on 9-point Likert scale, ranging from (1) strongly disagree to (9) strongly agree. The scores of Chinese auditors' perceptions of *corporate ethical values* are computed by adding scores in each dimension. To examine the validity of this scale, the CFA is conducted, and the results are shown in Table 21 Panel A. Compared with the assessment criteria, GFI, AGFI and CFI indicate that the model has a good fit for data. However, the index scores of χ^2/df and RMSEA are slightly higher than the criteria. Considering the small number of representative items, it is considered that this model represents the most appropriate fit for the Chinese auditors. Thus, this scale is also used to measure the Chinese auditor's

perception of *corporate ethical values*. An internal consistency test of this scale reveals high reliability (Cronbach's Alpha for *manager's unethical behaviour* is 0.809, and for *rewards and punishments* is 0.780). Reliability and the new scale of *corporate ethical values* are also shown in Table 21 Panel B.

Table 21: Measurements of *corporate ethical values*

Panel A: Results of measurement test		
	Modified model	Acceptable values
χ^2	18.260	
χ^2/df	4.565	< 3 (Kline, 2005)
GFI	0.977	≥ 0.90 (Hair et al., 2006)
AGFI	0.914	≥ 0.80 (Marsh et al., 1988)
RMSEA	0.108	< 0.80 (Hair et al., 2006)
CFI	0.970	≥ 0.90 (Bentler, 1990)
Panel B: Results of reliability test and the items in the model		
<i>Manager's unethical behaviour:</i> Cronbach's Alpha 0.780		<i>Rewards and punishments:</i> Cronbach's Alpha 0.809
Managers in my firm often engage in behaviours that I consider to be unethical In order to succeed in my firm, it is often necessary to compromise one's ethics		Top management in my firm has let it be known that unethical behaviours will not be tolerated If a manager in my firm is discovered to have engaged in unethical behaviour that results primarily in personal gain (rather than firm gain), he or she will be promptly reprimanded If a manager in my firm is discovered to have engaged in unethical behaviour that results in firm gain (rather than personal gain), he or she will be promptly reprimanded

5.2.4 Interpersonal relationships

Chinese auditors' *interpersonal relationships* can be described as *guanxi*, which is categorised into two typologies: *favour-seeking guanxi* and *rent-seeking guanxi*. To measure Chinese auditors' *guanxi* orientation, Fan et al. (2012b) develop a 12-item measurement. Eight of the 12 items are related to *favour-seeking guanxi*, and the rest are related to *rent-seeking guanxi*. Since this instrument has been demonstrated to have high reliability and validity in later studies (e.g., Fan et al., 2012b; 2014), this thesis also employs this instrument to measure Chinese auditors' *guanxi* orientation based on a 9-point Likert scale, ranging from (1) strongly disagree to (9) strongly agree. Respondent's score of *guanxi* are computed by adding the scores in each dimension. Higher scores indicate that respondents hold strong beliefs in *favour-seeking* or *rent-seeking guanxi* orientation. However, the CFA results (Table 22 Panel A) suggest a

very poor fit in this original 12-item model, compared with model assessment criteria. In Fan et al.'s (2014) study, items of "social relationships" (S.R.C. max = 3.473) , "inner circle" (S.R.C. max = 4.656) and "frequent corporation" (S.R.C. max = 5.250) are removed, since these three items represent significant misspecification in the model. These three items are also deleted in this thesis according to the results of modification indices and standardised residual covariance. The CFA results still suggest that more items need to be deleted in order to achieve a better model fit for the data. Items "good relationship" (S.R.C. max = 3.383) and "right people" (S.R.C. max = 2.296) are removed to determine a satisfactory model representing the same data. The CFA results for the new model are shown in Table 22 Panel A and suggest that the new model provides a good fit for the data. The modified version of the *guanxi* scale and the reliabilities of the two dimensions are shown in Table 22 Panel B. The results of the internal consistency test also show that the level of reliability are highly acceptable (Cronbach's Alpha for *favour-seeking guanxi* is 0.822, and for *rent-seeking guanxi* is 0.864).

Table 22: Measurements of *interpersonal relationships*

Panel A: Results of measurement test			
	Original model	Modified model	Acceptable values
χ^2	388.110	24.379	
χ^2/df	7.323	2.032	< 3 (Kline, 2005)
GFI	0.811	0.979	≥ 0.90 (Hair et al., 2006)
AGFI	0.721	0.951	≥ 0.80 (Marsh et al., 1988)
RMSEA	0.144	0.058	< 0.80 (Hair et al., 2006)
CFI	0.844	0.988	≥ 0.90 (Bentler, 1990)

Panel B: Results of reliability test and the items left in the model	
<i>Favour-seeking guanxi</i>: Cronbach's Alpha 0.822	<i>Rent-seeking guanxi</i>: Cronbach's Alpha 0.864
In business, it is important to maintain a good network of relationships	Gift giving is an important aspect in business success
Developing the right contacts helps in the smooth running of a business	In business, back door deals are alright as long as everyone prospers
Frequent cooperation reduces problems in business relationships	Power exchange relationships are normal in Chinese business
	Using bureaucratic privilege is common practice in business

5.2.5 Variables in the TPB model

The variables within the TPB model are measured by 10 questions after respondents read a scenario adopted from Arens and Loebbeck (2000). This scenario (see in Appendix 2) describes a situation that may damage audit independence. A CPA is considering whether he should accept an audit engagement when he already offers a consulting service for this client. At the end of scenario, the CPA accepts this audit engagement. Respondents are then required to evaluate this action and to answer questions related with the TPB variables. The scale for measuring *attitudes towards behaviour* is adopted from Buchan (2005). Following recommendation from Ajzen and Fishbein (1980), the scale requires respondents to show their feelings about the actions described in the scenario. This scale is based on four bipolar adjectives, and measured on a 9-point Likert scale with the following endpoints: “good-bad”, “ethical-unethical”, “wise-foolish” and “useful-useless”. Chinese auditor’s *attitudes towards behaviour* is calculated by summarising the scores of all items. According to the results of the internal consistency test, the reliability of this scale can be accepted (Cronbach’s Alpha 0.926).

To measure *subjective norms*, Buchan (2005) developed an assessment by combining three items that appeared in prior studies (e.g., Madden et al., 1992; Gibson & Frakes, 1997). Since this assessment has high reliability in Buchan’s (2005) study, it is also utilised to measure Chinese auditor’s *subjective norms* in this study. After adjusting minor words to fit for situations described in the scenario, these items, which are presented in Table 23, are applied to measure Chinese auditors’ *subjective norms* in this thesis. Respondents are required to show their level of agreements based on a 9-point Likert scale, ranging from (1) strongly agree to (9) strongly disagree. Their scores of *subjective norms* are calculated by collating the scores of these three items. An internal consistency test is conducted, and Cronbach’s Alpha for this scale is 0.756, which is acceptable.

Perceived behavioural control is measured by three items adopted from Madden et al.’s (1992) scale. Henle et al. (2010) utilise this scale to investigate how easily respondents believe that they could perform the target behaviour. Hence, this thesis also utilises this scale to measure Chinese auditors’ *perceived behavioural control*. The items of scale are shown in Table 23. Respondents are required to give their

answers based on a 9-point Likert scale, ranging from “easy/difficult”, “totally agree/disagree” and “totally agree/disagree”. Their scores of *perceived behavioural control* are computed by collating the scores of these three items. The results of the internal consistency test indicate that reliability could be acceptable (Cronbach’s Alpha 0.590).

The remaining three questions are concerned with Chinese auditors’ ethical intention. These three questions are adopted from Ajzen (1991), and are used in prior studies such as Buchan (2005). The questions ask auditors to indicate their level of intention to perform the action described in the scenario. These questions are shown in Table 23. Respondents answer these questions based on a 9-point Likert scale, with the endpoint of “very much/not at all”, “extremely likely/extremely unlikely”, and “false/true”. Auditors’ scores of *intention* are computed by summarising the scores of these three items. Higher scores indicate that auditors have a higher level of ethical intention, and less possibility to perform unethical behaviours. The Cronbach’s Alpha of this scale is 0.922, which represents a high reliability.

Table 23: Measurements for the TPB variables

Variables	Questions
<i>Attitudes towards behaviour</i> (Cronbach’s Alpha 0.93)	Do you think auditor’s decision to take audit engagement is 1) good-bad, 2) ethical-unethical, 3) wise-foolish, and 4) useful-useless
<i>Subjective norms</i> (Cronbach’s Alpha 0.76)	Most people (family members, colleagues, close friends, etc.) who are important to me would probably think I should take this audit engagement
	Most people (family members, colleagues, close friends, etc.) who are important to me will look down on me if I take this audit engagement
	No one (family members, colleagues, close friends, etc.) who is important to me thinks it is OK to take this audit engagement
<i>Perceived behavioural control</i> (Cronbach’s Alpha 0.60)	For me to accept this audit engagement is
	If I wanted to, I could easily accept this audit engagement
	The number of events outside my control, which could prevent me from taking this engagement
<i>Intention</i> (Cronbach’s Alpha 0.922)	How much would you want to accept this audit engagement described in the scenario
	How likely would you intend to accept this audit engagement described in the scenario
	I would never take this audit engagement in the future

5.2.6 Demographic variables

Demographic information is necessary to consider, since this information can confirm the comparability between various groups (Grove & Savich, 1979). The demographic data collected by this thesis includes *gender, age, education, experience, firms* and *region*. Furthermore, these variables are considered as antecedents affecting the ethical decision-making process, as suggested by Musbah et al. (2016) and Redfern and Crawford (2004). Thus, differences in the ethical decision-making process could be compared between groups for these variables. Gender is collected based on a nominal scale, which uses 1 to represent male and 2 to represent female. Other demographic variables are measured based on ordinal scales. The details of measurements for demographic variables are presented in Table 24.

Table 24: Measurements for demographic variables

Variables	Categories	Scale
<i>Gender</i>	Male	1 = Male
	Female	2 = Female
<i>Age</i>	20–30	1 = 20–30
	31–40	2 = 31–40
	41–50	3 = 41–50
	51–60	4 = 51–60
	Above 60	5 = Above 60
<i>Education</i>	Junior college	1 = Junior college
	Bachelor	2 = Bachelor
	Master	3 = Master
	Doctor	4 = Doctor
<i>Experience</i>	0–5 years	1 = 0–5 years
	6–10 years	2 = 6–10 years
	11–15 years	3 = 11–15 years
	16–20 years	4 = 16–20 years
	Over 20 years	5 = Over 20 years
<i>Firms</i>	International Big 4	1 = International Big 4
	China Big 10	2 = Chinese Big 8
	Local small firms	3 = Other

Variables	Categories	Scale
<i>Region</i>	Northern (e.g., Beijing, Jinan)	1 = Northern
	Southern (e.g., Guangzhou, Shenzhen)	2 = Southern
	Eastern (e.g., Shanghai, Hangzhou)	3 = Eastern
	Central (e.g., Wuhan, Zhengzhou)	4 = Central
	Western (e.g., Xian, Lanzhou)	5 = Western
	Others	6 = Others

5.3 Conclusion of Chapter 5

In this chapter, the research methodology utilised in this thesis was discussed. Methodology issues include the data collection method and measurement for each variable. A survey is employed in this thesis as the method for collecting data. The survey instrument includes an auditing case related to an auditor's dilemma when faced with pressure from a client and a self-administered questionnaire. The measurement model for each variable is tested using CFA and the results show that the scales have high reliability and a satisfactory model fit for the data in this thesis.

The statistical methods and results of this thesis are discussed in Chapter 6.

Chapter 6: Results

This chapter presents the results of the statistical analysis for this thesis. The statistical methods used in this thesis include descriptive analysis, t-tests, Structural Equation Modelling (SEM), instrumental variable (IV) method and multi-group comparison of SEM. The descriptive analysis is presented first in Section 6.1. In this section, findings with respondents' demographic information and descriptive analysis of variables are presented. Further, t-tests are utilised to compare variables within the model across demographic factors and the significant findings are presented in Section 6.2. The findings for the hypothesised relationships are examined through SEM analysis in Section 6.3. The findings for the multiple-group comparisons are presented in the Section 6.4

Mande, Ishak, Idris, and Ammani (2013) argue that the benefits of SEM are that this statistical method can test relationships between structural variables simultaneously, while other methods can only examine a single relationship at a time. Thus, SEM is the most appropriate method for examining multiple relationships among predictors and outcome factors within the conceptual framework of this thesis. According to Hulland (1999), procedures for SEM analysis have two stages: measurement model analysis and analysing the structural model. The tests of validity and reliability of each measurement model are completed through CFA (Chapter 5). Thus, SEM is applied in this chapter to examine the hypotheses in the structural model presented in Chapter 5 and summarised in Table 25. As the model in this thesis consists of two parts (the TPB model and the variables from the KP micro-level model), the results of the SEM tests will also be interpreted in two parts: the results of the TPB analysis (Section 6.3.1) and the SEM of decomposition of the TPB variables (Section 6.3.2).

Table 25: Hypotheses within the structural model

Number	Hypotheses
H ₁	Chinese auditors' <i>attitudes towards behaviour</i> is positively associated with their <i>intention</i> within the auditor-client context.
H ₂	Chinese auditors' perception of <i>subjective norms</i> is positively associated with their <i>intention</i> within the auditor-client context.
H ₃	Chinese auditors' <i>perceived behavioural control</i> is positively associated with their <i>intention</i> within the auditor-client context.
H ₄₋₁	Chinese auditors' <i>relativism</i> orientation is negatively associated with their <i>attitudes towards behaviour</i> within the auditor-client context.

Number	Hypotheses
H ₄₋₂	Chinese auditors' <i>idealism</i> orientation is positively associated with their <i>attitudes towards behaviour</i> within the auditor-client context.
H ₅₋₁	Chinese auditors' perceived <i>independence in mind</i> is positively associated with <i>attitudes towards behaviour</i> within the auditor-client context.
H ₅₋₂	Chinese auditors' perceived <i>independence in appearance</i> is positively associated with <i>subjective norms</i> within the auditor-client context.
H ₆	Within Chinese audit firms, perceived <i>ethical climate</i> is negatively associated with <i>subjective norms</i> .
H ₇₋₁	Within Chinese audit firms, perceived <i>rewards and punishments</i> is positively associated with <i>subjective norms</i> .
H ₇₋₂	Within Chinese audit firms, perceived <i>manager's unethical behaviour</i> is negatively associated with <i>subjective norms</i> .
H ₈₋₁	For Chinese auditors, their <i>favour-seeking guanxi</i> orientation is positively related with <i>subjective norms</i> .
H ₈₋₂	For Chinese auditors, their <i>rent-seeking guanxi</i> orientation is negatively related with <i>subjective norms</i> .

Endogeneity is an issue need to be examined when using observational data (Sande and Ghosh 2018). Wooldridge (2010) defines endogeneity as the situations that an explanatory variable in a regression equation correlates with the disturbance term. As Sande and Ghosh (2018) points out, endogeneity problems arise from three sources: omitted variables, simultaneity and measurement errors. They further recommend that IV method is the most commonly used approach to handle endogeneity issues in prior studies. Thus, in this thesis, IV method is also utilized to test whether endogeneity problems existing in conceptual frameworks. The results are presented in the Section 6.3.3.

Multi-group comparison through the SEM analysis is also employed in this thesis to investigate the influences of control variables. Cantisano, Domínguez, and García (2007) point out that research interests for social comparisons of people who face work-related threats have increased progressively. Through comparing decisions of different groups, the influence of social roles on an individual's decision-making process can be investigated. In this thesis, the impact of the social role of Chinese auditors is investigated based on their demographic information. The SEM analysis is also used to test the hypotheses for each group and examine the differences between groups. Hence, the influences of control variables used in this thesis on the Chinese auditors' ethical decision-making process will be also explored. The results of the

multi-group comparison are presented in Section 6.4. Finally, Section 6.5 summarises the main findings of this chapter.

6.1 Descriptive results

The descriptive analysis is the first step of statistical analysis. Through descriptive analysis, the data is summarised and described with the findings. The descriptive results are presented in two parts: the first part provides the background information of respondents; and the second part presents the descriptive results for the dependent and independent variables.

6.1.1 Details of demographic information of respondents

The sample for this thesis included 366 responses in total. After removing 60 invalid responses, as discussed in Chapter 5, 306 usable responses were finally included in the sample. Female auditors represent 55.2% of the total sample. This finding is consistent with Zhao and Lord (2016), who reveal a high presence of women in the Chinese auditing profession. The majority of the respondents are aged between 20 and 30 years old (64.1%). There were 194 respondents (63.4%) with professional experience ranging from 1–5 years, 55 respondents (18%) with more than five years but less than ten years auditing experience, and 58 respondents (19%) with more than ten years working experience. Most of participants come from local firms (54.6%), and are located in the northern part of China (54.6%), though Woodbine et al. (2012) suggest that there is no significant difference in ethical intention between business regions. Details of respondents' backgrounds are provided in Table 26.

Table 26: Background information of respondents

Demographics		Frequency	Per cent
<i>Gender</i>	Male	137	44.8
	Female	169	55.2
<i>Age</i>	20–30	196	64.1
	31–40	56	18.3
	41–50	44	14.4
	51–60	7	2.3
	Above 60	3	1.0
<i>Education</i>	Junior college	68	22.2
	Bachelor	203	66.3
	Master	33	10.8
	Doctor	2	0.7
<i>Experience</i>	0–5 years	194	63.4
	6–10 years	54	17.6
	11–15 years	37	12.1
	16–20 years	10	3.3
	Over 20 years	11	3.6
<i>Firms</i>	International Big4	20	6.5
	Chinese Big8	119	38.9
	Local small firms	167	54.6
<i>Region</i>	Northern (e.g., Beijing, Jinan)	167	54.6
	Southern (e.g., Guangzhou, Shenzhen)	12	3.9
	Eastern (e.g., Shanghai, Hangzhou)	37	12.1
	Central (e.g., Wuhan, Zhengzhou)	46	15.0
	Western (e.g., Xian, Lanzhou)	26	8.5
	Other	18	5.9

It is noted that some groups shown in Table 26 represent a small sample. For example, the PhD group has only two participants, and the group above 60 years of age only includes three participants. Considering that comparisons between groups are required to be implemented to address objective 3, which investigates the effects of demographic variables on ethical decision-making, regrouping of auditors based on demographic variables is necessary so that comparisons between groups are more efficient. Details of the regrouping of auditors are shown in Table 27.

Table 27: Regrouping of participants

Demographics		Frequency	Per cent
<i>Gender</i>	Male	137	44.8
	Female	169	55.2
<i>Age</i>	20–30	196	64.1
	Above 30	110	35.9
<i>Education</i>	Junior college	68	22.2
	Bachelor above	238	77.8
<i>Experience</i>	0–5 years	194	63.4
	Above 5 years	112	36.6
<i>Firms</i>	Big firms	139	45.4
	Local small firms	167	54.6
<i>Region</i>	North	193	63.1
	South	113	36.9

For the variable *gender*, the samples are also categorised as male (137) and female (169), as before. For the variable *age*, the samples are regrouped as 20–30 (196) and above 30 (110), because Kohlberg (1969) indicates that an individual’s ethical reasoning level develops as they mature. Traymbak and Kumar (2018) classify adults aged between 20–30 as a young group. Similarly, Ebner, He and Johnson (2011) also categorise individuals younger than 30 years as young group. Schlegel (2008) further considers the age of 30 as a cut-off point, and indicates that adults aged 30 and above would become more reasoning. For the variable *education*, the samples are regrouped as junior college (68) and bachelor above (238). Wang and Calvano (2015) indicate that tertiary education is important for an auditor’s moral reasoning. Wang and Calvano (2015) further suggest that undergraduate education in codes of ethics would affect a student’s ethical decision-making. Hence, auditors are classified as the group of less than undergraduate education (i.e., junior college) and undergraduate education and above (i.e., tertiary education). For the variable *experience*, the samples are regrouped as 0–5 years (194) and above 5 years (112). Yustina and Putri (2017) consider auditors who have more than five years professional experience are experienced auditors. They posit that experienced auditors would be different from auditors who have less experience in ethical reasoning. Hence, this thesis adopts similar criteria to that used in Yustina and Putri’s (2017) study. For the variable *firms*, the samples are regrouped as big firms (139) and local small firms (167). Bagley et al.

(2012) indicate that large accounting firms have better prestige and a more ethical firm climate, which could influence an auditor's ethical decision-making. For the variable *region*, the samples are regrouped as north (193) and south (113), due to the differences in local cultures between south and north in China (Redfern & Crawford, 2004). Cliff (1995) also points out that north China is different from other regions in China, because regional culture in northern China is more influenced by Confucianism. Hence, northern and western group are combined as the north group, while southern, eastern, central and others groups are classified as the south group. Wei et al. (2014) point out that the geographic boundary between north and south in China is the Qingling Mountains – Huaihe River line.

6.1.2 Descriptive analysis of variables

The descriptive results, including overall mean, standard deviation, standard error mean and one-sample t-test results for all variables are presented in Table 27. These results show that mean scores for *idealism*, *relativism*, *independence in mind*, *independence in appearance*, *favour-seeking guanxi*, *ethical climate*, *manager's unethical behaviour*, *rewards and punishments*, *attitudes towards behaviour*, *subjective norms* and *intention* are significantly higher than the midpoint value 5 at 5% significant level. The results also show that mean scores of *rent-seeking guanxi* and *perceived behavioural control* are significantly lower than the midpoint value 5 at 5% significant level.

Table 28: Descriptive and t-test of variables

Variables	Mean	Std. Deviation	SE	t	Sig. (2-tailed)
<i>Idealism</i>	7.93	1.254	0.072	110.695	0.000
<i>Relativism</i>	5.57	2.063	0.118	47.224	0.000
<i>Independence in mind</i>	8.53	1.168	0.067	127.730	0.000
<i>Independence in appearance</i>	7.96	1.405	0.080	99.083	0.000
<i>Favour-seeking guanxi</i>	7.72	1.430	0.082	94.495	0.000
<i>Rent-seeking guanxi</i>	4.74	2.338	0.134	35.440	0.000
<i>Ethical climate</i>	6.95	1.411	0.081	86.157	0.000
<i>Manager's unethical behaviour</i>	5.66	2.584	0.148	38.316	0.000
<i>Rewards and punishments</i>	7.00	1.805	0.103	67.830	0.000

Variables	Mean	Std. Deviation	SE	t	Sig. (2-tailed)
<i>Attitudes towards behaviour</i>	6.60	2.007	0.115	57.552	0.000
<i>Subjective norms</i>	4.44	2.186	0.125	35.509	0.000
<i>Perceived behavioural control</i>	4.99	2.278	0.130	38.339	0.000
<i>Intention</i>	6.36	2.135	0.122	52.083	0.000

6.2 Results of variables across demographic factors

In this thesis, demographic factors included in Table 27 are *gender*, *age*, *education*, *experience*, *firms* and *region*. Independent sample t-tests are employed to examine the differences for variables across these demographic factors.

6.2.1 Results of variables across *gender*

The differences of each variable for male and female Chinese auditors are investigated through independent sample t-tests. The significant results are provided in Table 29 and are presented as follows: male auditors have a significantly higher mean score for *relativism* than female auditors at 5% significance level ($t = 3.655$, sig. = 0.000). Further, male auditors are more likely to hold *rent-seeking guanxi* orientations than female auditors ($t = 3.920$, sig. = 0.000). Moreover, mean scores for *manager's unethical behaviour* for female auditors are significantly higher than for male auditors at 5% significance level ($t = -4.273$, sig. = 0.000). Finally, mean scores for *attitudes towards behaviour* for female auditors are also significantly higher than for male auditors at 5% significance level ($t = -2.549$, sig. = 0.011).

Table 29: T-test for variables across *gender*

Variables	Mean Difference	SE	Sig.	95% Confidence Interval	
				Lower	Upper
<i>Relativism</i>	0.850	0.232	0.000	0.392	1.307
<i>Rent-seeking guanxi</i>	1.030	0.263	0.000	0.513	1.547
<i>Manager's unethical behaviour</i>	-1.235	0.289	0.000	-1.804	-0.666
<i>Attitudes towards behaviour</i>	-0.583	0.229	0.011	-1.033	-0.133

6.2.2 Results of variables across *age*

Independent sample t-tests are used to investigate the differences of each variable for Chinese auditors who are aged 20–30 years and above 30 years. The significant results are provided in Table 30 and are presented as follows: auditors aged 20–30 have a significantly higher mean score for *independence in mind* than auditors above 30 at 5% significance level ($t = 2.978$, $\text{sig.} = 0.003$). Moreover, mean scores for *perceived behavioural control* for auditors aged 20–30 are significantly higher than that for auditors above 30 at 5% significance level ($t = 2.056$, $\text{sig.} = 0.041$).

Table 30: T-test for variables across *age*

Variables	Mean Difference	SE	Sig.	95% Confidence Interval	
				Lower	Upper
<i>Independence in mind</i>	0.546	0.183	0.003	0.184	0.907
<i>Perceived behavioural control</i>	0.555	0.270	0.041	0.024	1.086

6.2.3 Results of variables across *education*

The differences for variables across *education* are also compared through independent sample t-tests. The significant findings are shown in Table 31 and are presented as follows: mean scores of *rent-seeking guanxi* for auditors of junior college is significantly less than that for auditors holding bachelor degrees above at 5% significance level ($t = -2.198$, $\text{sig.} = 0.030$). Furthermore, mean scores for *attitudes towards behaviour* for auditors of junior college are also significantly less than for auditors holding bachelor degrees above at 5% significance level ($t = -2.010$, $\text{sig.} = 0.047$). Finally, auditors of junior college also have a significantly lower mean score for *perceived behavioural control* than that of auditors who holding bachelor degrees above at 5% significance level ($t = -2.153$, $\text{sig.} = 0.032$).

Table 31: T-test for variables across *education*

Variables	Mean Difference	SE	Sig.	95% Confidence Interval	
				Lower	Upper
<i>Rent-seeking guanxi</i>	-0.637	0.290	0.030	-1.210	-0.064
<i>Attitudes towards behaviour</i>	-0.614	0.306	0.047	-1.221	-0.007
<i>Perceived behavioural control</i>	-0.670	0.311	0.032	-1.283	-0.058

6.2.4 Results of variables across *experience*

The differences for each variable across *experience* are also explored through independent sample t-tests. The significant results are provided in Table 32 and are presented as follows: auditors who have less than 5 years' experience have a significantly higher mean score for *independence in mind* than auditors who have more than 5 years' experience at 5% significance level ($t = 2.353$, $\text{sig.} = 0.020$). Moreover, mean scores for *attitudes towards behaviour* for auditors who have less than 5 years' experience are also significantly higher than for auditors who have more than 5 years' experience at 5% significance level ($t = 2.029$, $\text{sig.} = 0.044$). Furthermore, mean scores of *subjective norms* for auditors who have less than 5 years' experience are also significantly higher than that for auditors who have more than 5 years' experience at 5% significance level ($t = 1.993$, $\text{sig.} = 0.047$). Finally, auditors who have less than 5 years' experience have a significantly higher mean score for *intention* than that of auditors who have more than 5 years' experience at 5% significance level ($t = 2.334$, $\text{sig.} = 0.020$).

Table 32: T-test for variables across *experience*

Variables	Mean Difference	SE	Sig.	95% Confidence Interval	
				Lower	Upper
<i>Independence in mind</i>	0.428	0.182	0.020	0.069	0.786
<i>Attitudes towards behaviour</i>	0.518	0.255	0.044	0.014	1.022
<i>Subjective norms</i>	0.515	0.258	0.047	0.007	1.023
<i>Intention</i>	0.587	0.252	0.020	0.092	1.082

6.2.5 Results of variables across *firms*

The differences for each variable of Chinese auditors from big firms and local small firms are also investigated through independent sample t-tests. The significant results are provided in Table 33 and are presented as follows: mean scores for *attitudes towards behaviour* for auditors in big firms are significantly higher than for auditors in local small firms above at 5% significance level ($t = 2.876$, $\text{sig.} = 0.004$). Moreover,

auditors in big firms have a significantly higher mean score for *intention* than that of auditors in local small firms above at 5% significance level ($t = 2.606$, $\text{sig.} = 0.010$).

Table 33: T-test for variables across firms

Variables	Mean Difference	SE	Sig.	95% Confidence Interval	
				Lower	Upper
<i>Attitudes towards behaviour</i>	0.655	0.228	0.004	0.207	1.103
<i>Intention</i>	0.633	0.243	0.010	0.155	1.111

6.2.6 Results of variables across *region*

Independent sample t-tests are utilised to explore the differences of each variable across *region*. The significant results are provided in Table 34 and are presented as follows: auditors in north China have a significantly higher mean score for *independence in mind* than auditors in south China at 5% significance level ($t = 3.361$, $\text{sig.} = 0.001$).

Table 34: T-test for variables across *region*

Variables	Mean Difference	SE	Sig.	95% Confidence Interval	
				Lower	Upper
<i>Independence in mind</i>	0.608	0.181	0.001	0.251	0.965

6.3 Hypotheses testing

As stated above, SEM is used to estimate relationships among dependent latent variables and relationships among latent variables and the underlying observed variables. Indices such as estimate, p value, standard error (SE) and critical ratio (CR) can help researchers to examine whether these variables are significantly associated. Hence, relationships within the model are examined based on the results of SEM analysis.

6.3.1 The results of TPB model

Whether the TPB can be applied within a dynamic context is one of the specific research objectives in this thesis. It is tested using SEM analysis; the results are presented in Figure 6.

Initially, the results of model fit indices (RESMA = 0.119) indicate that the sample of the Chinese auditors is not a good fit for the model based on the model assessment criteria. Thus, the first item of *subjective norms* (i.e., most people, e.g., family members, colleagues, close friends, etc., who are important to me would probably think I should take this audit engagement) and the third item of *perceived behavioural control* (i.e., the number of events outside my control, which could prevent me from taking this engagement) are deleted. The reduced model is then tested again, and the results suggest that the model has a good fit for the sample (RMSEA = 0.078). The results of relationships among variables within the reduced model are shown in Figure 6. The indices of p value, estimate, SE and CR are used to test the hypotheses within the TPB model.

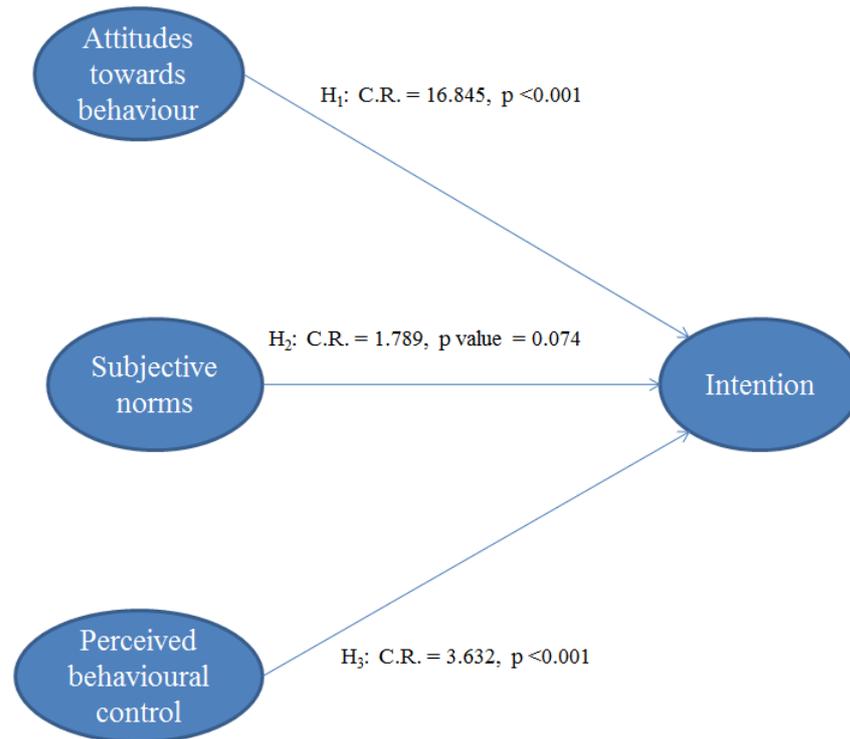


Figure 6: The results of the SEM analysis within the TPB model

The results of the SEM analysis show that the relationship between *attitudes towards behaviour* and *intention* is significant at the 0.001 significance level (estimate = 0.797, SE = 0.045, CR = 16.845, p value is less than 0.001). Thus, hypothesis H₁ that Chinese auditors' *attitudes towards behaviour* in the auditor-client conflict relationships are positively associated with their *intention* is supported. However, the results show that the path between *subjective norms* and *intention* is not significant (estimate = 0.071, SE = 0.049, CR = 1.789, p value = 0.074). This result does not support hypothesis H₂ that Chinese auditors' perceptions of *subjective norms* are positively associated with their *intention* at a 5% significance level. The results also show that the association between *perceived behavioural control* and *intention* is also significant at the 0.001 significance level (estimate = 0.235, SE = 0.054, CR = 3.632, p value is less than 0.001). Therefore, it is concluded that hypothesis H₃ that Chinese auditors' *perceived behavioural control* is positively associated with their *intention* is supported.

6.3.2 Integrating variables with the TPB model

According to the Kleinman and Palmon (2001) auditor-client relationship model proposed in Chapter 3, variables of *ethical ideologies*, *interpersonal relationships*, *code of ethics*, *ethical climate* and *corporate ethical values* should be integrated with the TPB model, since these variables can influence the auditor's ethical intention within the auditor-client context. Hypotheses related to these new variables were proposed in Chapter 4. The measurement model of each variable in the research model is tested and validated by using CFA (Chapter 5). SEM analysis based on the confirmed measurement models from Chapter 5 is utilised to examine the hypotheses in this Chapter. The results of the model fit indices show that the sample of Chinese auditors does not initially fit the data well (RMSEA = 0.083). Based on the modified indices, one of the items for measuring *manager's unethical behaviour* is deleted. SEM is conducted again, and the results of model fit indices (RMSEA = 0.078) indicate that this model has a good fit for the sample. Then, relationships among variables are examined by evaluating indices of p value, estimate, SE, CR. The results of an integrated model are shown in the Figure 7

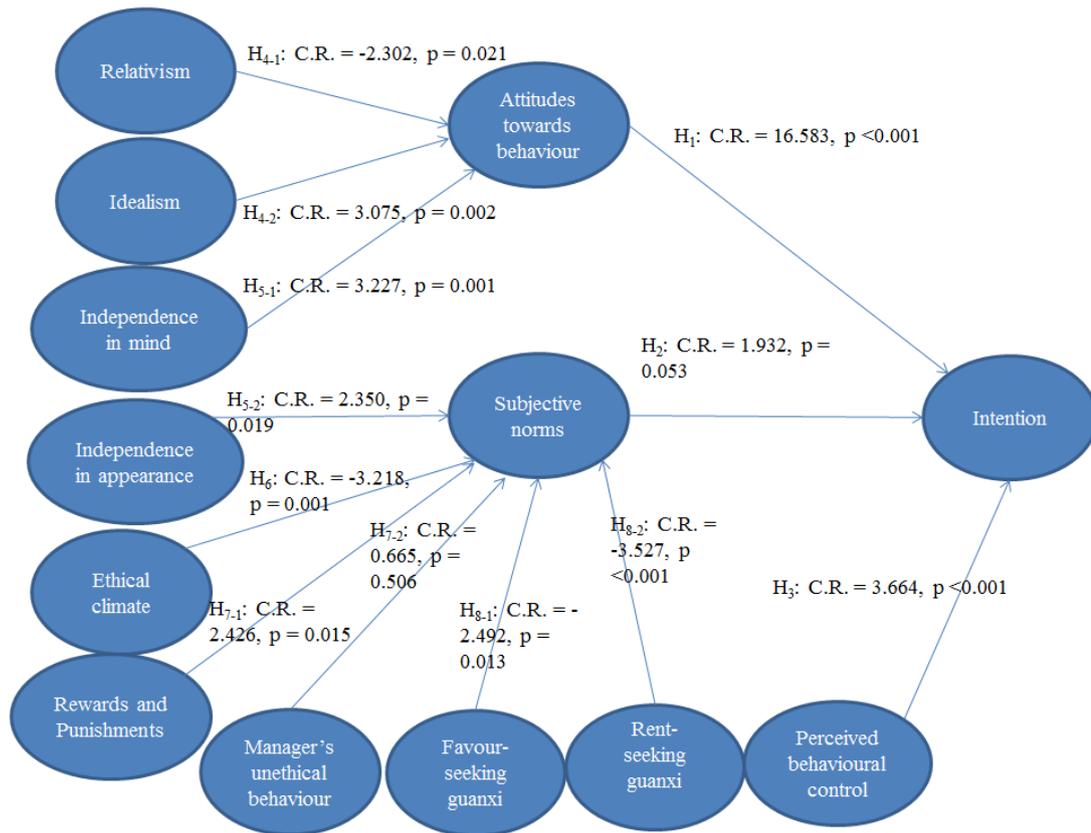


Figure 7: The results of the SEM analysis for an integrated model

Based on the results shown in the Figure 7, the indices for the relationships within the TPB model change slightly; however, the conclusions remain unchanged. Hypothesis H_1 , that *attitudes towards behaviour* positively impacts *intention*, is supported (estimate = 0.793, SE = 0.046, CR = 16.583, p value is less than 0.001); hypothesis H_2 , that *subjective norms* positively impacts *intention*, is not supported (estimate = 0.081, SE = 0.048, CR = 1.932, p value = 0.053); and finally, hypothesis H_3 that *perceived behavioural control* positively impacts *intention* is supported (estimate = 0.238, SE = 0.054, CR = 3.664, p value is less than 0.001).

The variable of *ethical ideologies* has two constructs: *relativism* and *idealism*. The results of the SEM analysis show that *relativism* negatively affects *attitudes towards behaviour* (estimate = -0.142, SE = 0.075, CR = -2.302, p value = 0.021). Furthermore, *idealism* positively influences *attitudes towards behaviour* (estimate = 0.192, SE = 0.101, CR = 3.075, p value = 0.002). Hence, hypothesis $H_{4.1}$ that Chinese auditor's *relativism* orientation is negatively associated with their *attitudes towards behaviour*,

and hypothesis H_{4.2} that Chinese auditor's *idealism* orientation is positively associated with their *attitudes towards behaviour* are supported.

The variable of *code of ethics* also has two constructs: *independence in mind* and *independence in appearance*. According to the results shown in Figure 7, *independence in mind* positively and significantly affects *attitudes towards behaviour* (estimate = 0.198, SE = 0.118, CR = 3.227, p value = 0.001). Thus, this result supports hypothesis H_{5.1} that perceived audit *independence in mind* is positively associated with *attitudes towards behaviour*. Furthermore, *independence in appearance* is found to be positively associated with *subjective norms* (estimate = 0.159, SE = 0.101, CR = 2.350, p value = 0.019), which supports hypothesis H_{5.2} that Chinese auditors' perceived audit *independence in appearance* is positively associated with *subjective norms*.

Organisational ethical context consists of two parts: *ethical climate* and *corporate ethical values*. The results in Figure 7 show that *ethical climate* is negatively associated with *subjective norms* (estimate = -0.246, SE = 0.189, CR = -3.218, p value = 0.001), which supports hypothesis H₆ that perceived *ethical climate* is negatively associated with *subjective norms* within the Chinese auditor-client context.

The variable of *corporate ethical values* includes two factors: *manager's unethical behaviour* and *rewards and punishments*. According to the results, *rewards and punishments* has a positive influence on *subjective norms* (estimate = 0.164, SE = 0.074, CR = 2.426, p value = 0.015), which is consistent with hypothesis H_{7.1} that perceived *rewards and punishments* is positively associated with *subjective norms* within the Chinese auditor-client context. However, results of the SEM analysis show that *manager's unethical behaviour* is not significantly associated with *subjective norms* (estimate = 0.039, SE = 0.038, CR = 0.665, p value = 0.506). Hence, hypothesis H_{7.2} that perceived *manager's unethical behaviour* is negatively associated with *subjective norms* within the Chinese auditor-client context is rejected.

The variable *interpersonal relationships* also has two constructs: *favour-seeking guanxi* and *rent-seeking guanxi*. The results of the SEM analysis show that *favour-seeking guanxi* negatively influences *subjective norms* (estimate = -0.169, SE = 0.081, CR = -2.492, p value = 0.013). This result is contrary to hypothesis H_{8.1} that Chinese auditors' orientation of *favour-seeking guanxi* is positively related with *subjective*

norms. Thus, hypothesis H₈₋₁ is not supported. The results of the SEM analysis show that *rent-seeking guanxi* negatively affects *subjective norms* (estimate = -0.239, SE = 0.042, CR = -3.527, p value is less than 0.001). Hence, hypothesis H₈₋₂ that Chinese auditors' orientation of *rent-seeking guanxi* is negatively related with their *subjective norms* is supported.

6.3.3 Endogeneity test within conceptual framework

Based on the conceptual framework, the dependent variable intention (IN) is influenced by attitudes towards behaviour (ATT), subjective norms (SN), and perceived behavioural control (PBC). Wooldridge (2015) suggests that control variables should be included when considered endogeneity issues. Hence, the original regression equation is revised as follows:

$$IN = \beta_0 + \beta_1 ATT + \beta_2 SN + \beta_3 PBC + \beta_4 Gender + \beta_5 Region + \beta_6 Age + \beta_7 Experience + \beta_8 Firm + \beta_9 Education + U_i$$

β_0 : Constant

U_i : Error term

As discussed at the beginning of this chapter, Sande and Ghosh (2018) recommends the IV method to address with endogeneity issues for survey data. Under the IV method, the regression equation is required to be integrated with exogenous variables as instrumental variables, affecting an endogenous independent variable but not associated with error term (Sande and Ghosh 2018). Based on the results from hypotheses tests shown in Section 6.3.2 (referred to Figure 7), *idealism* (IDE), *relativism* (REL) and *independence in mind* (INM) are significantly associated with the ATT. Wooldridge (2015) suggest that a further exclusion restriction test can reveal that whether these variables are correlated with error term. The results are presented in Table 35.

Table 35: Results of exclusion restriction test for IDE, REL and INM

Variables	Error term	
	Coefficient	SE
IDE	0.038	0.044
REL	0.008	0.034
INM	0.004	0.043
Constant	0.000	0.033
R square	0.005	
Observation	306	

*** p<0.01, ** p<0.05, p<0.1

The results in the Table 35 show that IDE (Coefficient = 0.038, S.E. = 0.044, p >0.1), REL (Coefficient = 0.008, S.E. = 0.034, p >0.1), and INM (Coefficient = 0.004, S.E. = 0.043, p >0.1) are not correlated with error term. Hence, these variables can be treated as instrumental variables. Then the regression is applied for analyzing the ATT with other exogenous variables. The equation model is presented as follows:

$$ATT = \beta_0 + \beta_1 IDE + \beta_2 REL + \beta_3 INM + \beta_4 Gender + \beta_5 Region + \beta_6 Age + \beta_7 Experience + \beta_8 Firm + \beta_9 Education + \beta_{10} SN + \beta_{11} PBC + U_i$$

Sande and Ghosh (2018) suggest that the residual variable R_ATT from the regression model can be obtained automatically through using the Stata software. Thus, this statistical software is used to test the endogeneity issues. The R_ATT is introduced into the original model to test whether the ATT has endogeneity problems. The new equation is shown as follows:

$$IN = \beta_0 + \beta_1 ATT + \beta_2 SN + \beta_3 PBC + \beta_4 Gender + \beta_5 Region + \beta_6 Age + \beta_7 Experience + \beta_8 Education + \beta_{10} R_ATT + U_i$$

If the R_ATT is significantly correlated with the dependent variable, the variable ATT has endogeneity problems; otherwise, there is no endogeneity for the ATT. The results are presented in the Table 36.

Table 36: Result of endogeneity test with the ATT

Variables	IN	
	Coefficient	SE
ATT	0.862***	0.122
SN	0.067*	0.035
PBC	0.130**	0.051
Gender	-0.080	0.075
Region	0.105	0.076
Age	-0.080	0.117
Experience	-0.007	0.118
Firm	-0.047	0.082
Education	-0.086	0.087

Variables	IN	
	Coefficient	SE
R_ATT	-0.131	0.128
Constant	0.323	0.282
R square	0.663	
Observation	306	

*** p<0.01, ** p<0.05, p<0.1

Based on the results shown in the Table 36, the R_ATT is not correlated with the dependent variable (i.e. coefficient = -0.131, S.E. = 0.128, p > 0.1). This result indicates that no omitted variables and simultaneous effects for the relationship between the ATT and IN. Hence, the variable ATT does not have endogeneity problems.

As shown in Section 6.3.2, the SN is significantly correlated with independence in mind (INA), favour-seeking guanxi (FSG), rent-seeking guanxi (RSG), rewards and punishments (RP) and ethical climate (EC). A further exclusion restriction test can examine that whether these variables can be treated as instrumental variable for the SN. The results are presented in the Table 37.

Table 37: Results of exclusion restriction test for IDE, REL and INM

Variables	Error term	
	Coefficient	SE
INA	-0.014	0.041
FSG	0.033	0.042
RSG	-0.038	0.036
RP	0.102***	0.038
EC	-0.070	0.043
Constant	0.000	0.033
R square	0.032	
Observation	306	

*** p<0.01, ** p<0.05, p<0.1

Based on the results in the Table 37, the variables of INA (Coefficient = -0.014, S.E. = 0.041, p > 0.1), FSG (Coefficient = 0.033, S.E. = 0.042, p > 0.1), RSG (Coefficient = -0.038, S.E. = 0.036, p > 0.1), and EC (Coefficient = -0.070, S.E. = 0.043, p > 0.1) are not significantly correlated with the error term. Hence, these variables can be treated as instrumental variables for the SN. The equation model is presented as follows:

$$SN = \beta_0 + \beta_1 INA + \beta_2 FSG + \beta_3 RSG + \beta_4 EC + \beta_5 Gender + \beta_6 Region + \beta_7 Age + \beta_8 Experience + \beta_9 Firm + \beta_{10} Education + \beta_{11} ATT + \beta_{12} PBC + U_i$$

The residual variable R_SN from the above regression equation is obtained automatically through the Stata software. Then R_SN is introduced into the original regression equation to test the endogeneity with the SN. The equation is presented as follows:

$$IN = \beta_0 + \beta_1 ATT + \beta_2 SN + \beta_3 PBC + \beta_4 Gender + \beta_5 Region + \beta_6 Age + \beta_7 Experience + \beta_8 Firm + \beta_9 Education + \beta_{10} R_SN + U_i$$

The results of regression test are shown in the Table 38. Based on these results, the R_SN is not correlated with the dependent variable (Coefficient = -0.111, S.E. = 0.107, $p > 0.1$). This result indicates that no omitted variables and simultaneous effects for the association between the SN and IN. Hence, there is no endogeneity for the variable SN. Therefore, there is no endogeneity problems for the variables within the conceptual framework.

Table 38: Test of endogeneity with the SN

Variables	IN	
	Coefficient	S.E.
ATT	0.749***	0.037
SN	0.159	0.100
PBC	0.154***	0.038
Gender	-0.069	0.072
Region	0.097	0.076
Age	-0.029	0.109
Experience	-0.035	0.110
Firm	-0.079	0.073
Education	-0.054	0.088
R_SN	-0.111	0.107
Constant	0.277	0.285
R square	0.663	
Observation	306	

*** $p < 0.01$, ** $p < 0.05$, $p < 0.1$

6.4 Multi-group comparison based on the control variables

As mentioned previously, multiple-group comparisons through SEM are utilised to further explore the impact of control variables on the relationships within the model. The groups in the analyses are divided based on the nature of each control variable. A z-test are utilized to compare whether the regression coefficients are significantly different between groups. The results are presented below.

6.4.1 Gender

The results of the two-group comparison are presented in Table 39. The significant findings for *gender* are as follows.

Hypotheses H₁ that *attitudes towards behaviour* positively affects *intention*, H₃ that *perceived behavioural control* positively impacts on *intention*, H₅₋₁ that *independence in mind* positively affects *attitudes towards behaviour* and H₆ that *ethical climate* negatively affects *subjective norms* are supported in the male, the female and the overall group.

Hypotheses H₂ that *subjective norms* positively affects *intention*, H₇₋₂ that *manager's unethical behaviour* negatively affects *subjective norms* and H₈₋₁ that *favour-seeking guanxi* positively affects *subjective norms* are not supported in the male, the female and the overall group.

Hypotheses H₄₋₁ that *relativism* negatively impacts on *attitudes towards behaviour*, H₄₋₂ that *idealism* positively impacts on *attitudes towards behaviour*, H₇₋₁ that *rewards and punishments* positively affects *subjective norms* and H₈₋₂ that *rent-seeking guanxi* negatively affects *subjective norms* are not supported in the male group, whereas they are supported in the female and the overall group.

Hypothesis H₅₋₂ that *independence in appearance* positively impacts *subjective norms* is not supported in either the male and the female groups, whereas it is supported in the overall group.

The difference in coefficient between the groups male and female is significantly in the hypotheses H₈₋₂ that *rent-seeking guanxi* negatively affects *subjective norms* at 1% significance level.

Table 39: The results of multiple-group comparison for gender

Hypotheses	Male			Female			Z score	Overall		
	Estimate	P	S/N	Estimate	P	S/N		Estimate	P	S/N
H₁: Attitudes towards behaviour positively affects intention	0.795	<0.001	S	0.785	0.000	S	-0.315	0.768	<0.001	S
H₂: Subjective norms positively affects intention	0.103	0.099	NS	0.067	0.219	NS	-0.734	0.093	0.053	NS
H₃: Perceived behavioural control positively affects intention	0.221	0.013	S	0.253	0.005	S	-0.150	0.198	<0.001	S
H₄₋₁: Relativism negatively affects attitudes towards behaviour	-0.034	0.709	NS	-0.187	0.025	S	-1.293	-0.173	0.021	S
H₄₋₂: Idealism positively affects attitudes towards behaviour	0.131	0.160	NS	0.215	0.010	S	0.938	0.310	0.002	S
H₅₋₁: Independence in mind positively affects attitudes towards behaviour	0.199	0.041	S	0.195	0.015	S	-0.012	0.380	0.001	S
H₅₋₂: Independence in appearance positively affects subjective norms	0.201	0.070	NS	0.104	0.223	NS	-0.414	0.238	0.019	S
H₆: Ethical climate negatively affects subjective norms	-0.266	0.044	S	-0.235	0.013	S	-0.246	-0.607	0.001	S
H₇₋₁: Rewards and punishments positively affects	0.013	0.889	NS	0.234	0.010	S	1.776*	0.179	0.015	S

Hypotheses	Male			Female			Z score	Overall		
	Estimate	P	S/N	Estimate	P	S/N		Estimate	P	S/N
<i>subjective norms</i>										
H7-2: <i>Manager's unethical behaviour negatively affects subjective norms</i>	0.044	0.606	NS	0.005	0.946	NS	-0.269	0.025	0.506	NS
H8-1: <i>Favour-seeking guanxi positively affects subjective norms</i>	-0.168	0.106	NS	-0.121	0.162	NS	0.048	-0.202	0.013	NS
H8-2: <i>Rent-seeking guanxi negatively affects subjective norms</i>	-0.083	0.367	NS	-0.334	<0.001	S	2.411*	-0.147	<0.001	S

Notes: *** p-value < 0.01; ** p-value < 0.05; * p-value < 0.10

6.4.2 Age

The results of multi-group comparisons based on *age* are presented in Table 40. The significant findings are as follows.

Hypotheses H₁ that *attitudes towards behaviour* positively affects *intention* and H₈₋₂ that *rent-seeking guanxi* negatively affects *subjective norms* are supported in of the 20–30 group, the above 30 group and the overall group.

Hypotheses H₃ that *perceived behavioural control* positively impacts on *intention*, H₄₋₁ that *relativism* negatively impacts on *attitudes towards behaviour*, H₄₋₂ that *idealism* positively impacts on *attitudes towards behaviour* and H₇₋₁ that *rewards and punishments* positively affects *subjective norms* are supported in the 20–30 group and the overall group, whereas they are not supported in the above 30 group.

Hypotheses H₅₋₁ that *independence in mind* positively affects *attitudes towards behaviour* and H₆ that *ethical climate* negatively affects *subjective norms* are

supported in the above 30 group and the overall group, whereas they are not supported in the 20–30 group.

Hypothesis H₅₋₂ that *independence in appearance* positively impacts *subjective norms* is not supported in the 20–30 group and the above 30 group; however, it is supported in the overall group.

Hypotheses H₂ that *subjective norms* positively affects *intention*, H₇₋₂ that *manager's unethical behaviour* negatively affects *subjective norms* and H₈₋₁ that *favour-seeking guanxi* positively affects *subjective norms* are not supported in the 20–30 group, the above 30 group and the overall group.

The differences in coefficient between the 20–30 group and above 30 group are significantly in the hypotheses H₃ that *perceived behavioural control* positively impacts on *intention* and H₄₋₂ that *idealism* positively impacts on *attitudes towards behaviour* at 5% significance level.

Table 40: The results of multiple-group comparison for age

Hypotheses	20–30			Above 30			Z score	Overall		
	Estimate	P	S/N S	Estimate	P	S/N S		Estimate	P	S/N S
H₁: <i>Attitudes towards behaviour</i> positively affects <i>intention</i>	0.731	0.000	S	0.858	<0.001	S	0.069	0.768	1	S
H₂: <i>Subjective norms</i> positively affects <i>intention</i>	0.012	0.816	NS	0.142	0.026	NS	0.353	0.093	0.053	NS
H₃: <i>Perceived behavioural control</i> positively affects <i>intention</i>	0.280	0.000	S	0.164	0.145	NS	2.142*	0.198	<0.001	S
H₄₋₁: <i>Relativism</i> negatively affects <i>attitudes towards behaviour</i>	-0.207	0.008	S	-0.063	0.516	NS	0.950	-0.173	0.021	S

Hypotheses	20-30			Above 30			Z score	Overall		
	Estimate	P	S/N S	Estimate	P	S/N S		Estimate	P	S/N S
H4-2: <i>Idealism</i> positively affects <i>attitudes</i> towards <i>behaviour</i>	0.273	<0.001	S	-0.024	0.803	NS	-2.348*	0.310	0.002	S
H5-1: <i>Independence in mind</i> positively affects <i>attitudes</i> towards <i>behaviour</i>	0.093	0.167	NS	0.391	<0.001	S	1.807*	0.380	0.001	S
H5-2: <i>Independence in appearance</i> positively affects <i>subjective norms</i>	0.141	0.104	NS	0.156	0.138	NS	-0.130	0.238	0.019	S
H6: <i>Ethical climate</i> negatively affects <i>subjective norms</i>	-0.166	0.061	NS	-0.371	0.006	S	-0.950	-0.607	0.001	S
H7-1: <i>Rewards and punishments</i> positively affects <i>subjective norms</i>	0.179	0.035	S	0.132	0.225	NS	-0.345	0.179	0.015	S
H7-2: <i>Manager's unethical behaviour</i> negatively affects <i>subjective norms</i>	0.041	0.565	NS	0.000	0.997	NS	-0.311	0.025	0.506	NS
H8-1: <i>Favour-seeking guanxi</i> positively affects <i>subjective norms</i>	-0.120	0.145	NS	-0.161	0.130	NS	-0.042	-0.202	0.013	NS
H8-2: <i>Rent-seeking guanxi</i> negatively affects <i>subjective norms</i>	-0.234	0.007	S	-0.296	0.009	S	-0.518	-0.147	<0.001	S

Notes: *** p-value < 0.01; ** p-value < 0.05; * p-value < 0.10

6.4.3 Education

The results of multi-group comparisons based on *education* are presented in Table 41. The significant findings are presented as follows.

Hypotheses H₁ that *attitudes towards behaviour* positively affects *intention*, H₇₋₁ that *rewards and punishments* positively affects *subjective norms* and H₈₋₂ that *rent-seeking guanxi* negatively affects *subjective norms* are supported in the junior college group, the bachelor above group and the overall group.

Hypotheses H₃ that *perceived behavioural control* positively impacts on *intention*, H₄₋₁ that *relativism* negatively impacts on *attitudes towards behaviour*, H₅₋₂ that *independence in appearance* positively impacts *subjective norms* and H₆ that *ethical climate* significantly affects *subjective norms* are supported in both the bachelor above group and the overall group, but they not supported in the junior college group.

Hypothesis H₄₋₂ that *idealism* positively impacts on *attitudes towards behaviour* is not supported in the bachelor above group and the junior college group; however, it is supported in the overall group. In the junior college group, *idealism* can negatively impact on *attitudes towards behaviour*, which is the opposite to hypothesis H₄₋₂.

Hypothesis H₂ that *subjective norms* positively affects *intention* is supported in the bachelor above group, but it is not supported in the junior college group and the overall group.

Hypotheses H₈₋₁ that *favour-seeking guanxi* positively affects *subjective norms* and H₇₋₂ that *manager's unethical behaviour* negatively affects *subjective norms* are not supported in the bachelor above group, the junior college group and the overall group.

The differences in coefficient between the junior college group and bachelor above group are significantly in the hypotheses H₃ that *perceived behavioural control* positively impacts on *intention*, H₆ that *ethical climate* significantly affects *subjective norms* and H₈₋₁ that *favour-seeking guanxi* positively affects *subjective norms* at 5% significance level.

Table 41: The results of multiple-group comparison for *education*

Hypotheses	Junior college			Bachelor above			Z score	Overall		
	Estimate	P	S/N S	Estimate	P	S/N S		Estimate	P	S/N S
H1: Attitudes towards behaviour positively affects intention	0.947	<0.001	S	0.772	<0.001	S	0.069	0.733	<0.001	S
H2: Subjective norms positively affects intention	0.063	0.257	NS	0.149	0.045	S	0.353	0.102	0.053	NS
H3: Perceived behavioural control positively affects intention	0.034	0.775	NS	0.037	<0.001	S	2.142*	0.294	<0.001	S
H4-1: Relativism negatively affects attitudes towards behaviour	-0.002	0.981	NS	-0.113	0.011	S	-0.964	-0.164	0.021	S
H4-2: Idealism positively affects attitudes towards behaviour	-0.377	<0.001	NS	0.273	0.397	NS	1.308	-0.053	0.002	S
H5-1: Independence in mind positively affects attitudes towards behaviour	0.926	<0.001	NS	0.494	<0.001	S	-0.438	0.985	0.001	S
H5-2: Independence in appearance positively affects subjective norms	-0.009	0.933	NS	-0.088	<0.001	S	1.735*	0.458	0.019	S
H6: Ethical climate significantly affects subjective norms	-0.146	0.190	NS	-0.736	<0.001	S	-2.22**	-0.553	0.001	S
H7-1: Rewards and punishments positively	0.782	<0.001	S	0.377	0.016	S	0.322	0.301	0.015	S

Hypotheses	Junior college			Bachelor above			Z score	Overall		
	Estimate	P	S/N S	Estimate	P	S/N S		Estimate	P	S/N S
affects <i>subjective norms</i> H7-2: Manager's <i>unethical behaviour</i> negatively affects <i>subjective norms</i>	0.148	0.129	NS	0.032	0.344	NS	0.706	0.102	0.506	NS
H8-1: Favour- seeking <i>guanxi</i> positively affects <i>subjective norms</i>	-0.531	<0.001	NS	-0.149	0.001	NS	-2.156*	-0.438	0.013	NS
H8-2: Rent- seeking <i>guanxi</i> negatively affects <i>subjective norms</i>	-0.251	0.027	S	-0.183	<0.001	S	-1.142	-0.437	<0.001	S

Notes: *** p-value < 0.01; ** p-value < 0.05; * p-value < 0.10

6.4.4 Experience

The results of multi-group comparison based on *experience* are presented in Table 42. The significant findings are presented as follows.

Hypotheses H₁ that *attitudes towards behaviour* positively affects *intention* is supported in the 0–5 years group, the above 5 years group, and the overall group.

Hypotheses H₃ that *perceived behavioural control* positively impacts on *intention*, H₄₋₁ that *relativism* negatively impacts on *attitudes towards behaviour* and H₄₋₂ that *idealism* positively impacts on *attitudes towards behaviour* are supported in both the 0–5 years group and the overall group; however, they are not supported in the above 5 years group.

Hypotheses H₅₋₁ that *independence in mind* positively affects *attitudes towards behaviour*, H₆ that *ethical climate* negatively affects *subjective norms* and H₈₋₂ that *rent-seeking guanxi* negatively affects *subjective norms* are supported in both the

above 5 years group and the overall group; however, they are not supported in the 0–5 years group.

Hypotheses H₅₋₂ that *independence in appearance* positively impacts *subjective norms* and H₇₋₁ that *rewards and punishments* positively affects *subjective norms* are not supported in both the 0–5 years group and the above 5 years group; however, they are supported in the overall group.

Hypotheses H₂ that *subjective norms* positively affects *intention*, H₇₋₂ that *manager's unethical behaviour* negatively affects *subjective norms* and H₈₋₁ that *favour-seeking guanxi* positively affects *subjective norms* are not supported in the 0–5 years group, the above 5 years group and the overall group.

The differences in coefficient between the 0–5 years group and above 5 years group are significantly in the hypotheses H₄₋₁ that *relativism* negatively impacts on *attitudes towards behaviour* and H₄₋₂ that *idealism* positively impacts on *attitudes towards behaviour* at 5% significance level.

Table 42: The results of multiple-group comparison for *experience*

Hypotheses	0–5			Above 5			Z score	Overall		
	Estimate	P	S/N S	Estimate	P	S/N S		Estimate	P	S/N S
H1: <i>Attitudes towards behaviour</i> positively affects <i>intention</i>	0.710	<0.001	S	0.892	0.000	S	0.498	0.768	<0.001	S
H2: <i>Subjective norms</i> positively affects <i>intention</i>	0.037	0.527	NS	0.103	0.072	NS	1.018	0.093	0.053	NS
H3: <i>Perceived behavioural control</i> positively affects <i>intention</i>	0.278	0.002	S	0.124	0.170	NS	-1.083	0.198	<0.001	S
H4-1: <i>Relativism</i> negatively affects <i>attitudes towards behaviour</i>	-0.303	<0.001	S	0.045	0.648	NS	2.472*	-0.173	0.021	S
H4-2: <i>Idealism</i> positively affects <i>attitudes towards behaviour</i>	0.286	<0.001	S	0.001	0.988	NS	2.16**	0.310	0.002	S

Hypotheses	0-5			Above 5			Z score	Overall		
	Estimate	P	S/N S	Estimate	P	S/N S		Estimate	P	S/N S
positively affects attitudes towards behaviour H5-1: <i>Independence in mind</i>	0.131	0.067	NS	0.318	0.001	S	1.373	0.380	0.001	S
positively affects subjective norms H6: <i>Ethical climate</i>	0.181	0.050	NS	0.094	0.356	NS	-1.054	0.238	0.019	S
negatively affects subjective norms H7-1: <i>Rewards and punishments</i>	-0.182	0.060	NS	-0.289	0.015	S	0.149	-0.607	0.001	S
positively affects subjective norms H7-2: <i>Manager's unethical behaviour</i>	0.165	0.056	NS	0.126	0.245	NS	-0.320	0.179	0.015	S
negatively affects subjective norms H8-1: <i>Favour-seeking guanxi</i>	0.046	0.540	NS	0.018	0.848	NS	-0.266	0.025	0.506	NS
positively affects subjective norms H8-2: <i>Rent-seeking guanxi</i>	-0.160	0.073	NS	-0.146	0.166	NS	0.772	-0.202	0.013	NS
negatively affects subjective norms	-0.152	0.064	NS	-0.395	0.002	S	-1.357	-0.147	<0.001	S

Notes: *** p-value < 0.01; ** p-value < 0.05; * p-value < 0.10

6.4.5 Firms

The results of comparison based on *firms* are presented in Table 43. The significant findings are presented as follows.

Hypotheses H₁ that *attitudes towards behaviour* positively affects *intention*, H₃ that *perceived behavioural control* positively impacts on *intention* and H₆ that *ethical climate* negatively affects *subjective norms* are supported in the big firms group, the local small firms group and the overall group.

Hypotheses H₄₋₁ that *relativism* negatively impacts on *attitudes towards behaviour*, H₄₋₂ that *idealism* positively impacts on *attitudes towards behaviour* and H₇₋₁ that *rewards and punishments* positively affects *subjective norms* are supported in both the big firms group and the overall group but not supported in the local small firms group.

Hypotheses H₅₋₁ that *independence in mind* positively affects *attitudes towards behaviour* and H₈₋₂ that *rent-seeking guanxi* negatively affects *subjective norms* are supported in both the local small firms group and the overall group, but not supported in the big firms group.

Hypothesis H₅₋₂ that *independence in appearance* positively impacts *subjective norms* is not supported in both the big firms group and the local small firms group; however, it is supported in the overall group.

Hypotheses H₂ that *subjective norms* positively affects *intention*, H₇₋₂ that *manager's unethical behaviour* negatively affects *subjective norms* and H₈₋₁ that *favour-seeking guanxi* positively affects *subjective norms* are not supported in the big firms group, the local small firms group and the overall group.

The differences in coefficient between the big firms group and local small firms group are significantly in the hypothesis H₄₋₁ that *relativism* negatively impacts on *attitudes towards behaviour* at 5% significance level, and in the hypothesis H₄₋₂ that *idealism* positively impacts on *attitudes towards behaviour* at 1% significance level.

Table 43: The results of multiple-group comparison for firms

Hypotheses	Big firms			Local small firms			Z score	Overall		
	Estimate	P	S/N	Estimate	P	S/N		Estimate	P	S/N
H1: <i>Attitudes towards behaviour positively affects intention</i>	0.773	<0.001	S	0.675	<0.001	S	-1.632	0.768	<0.001	S
H2: <i>Subjective norms positively affects intention</i>	0.081	0.201	NS	0.086	0.199	NS	0.005	0.093	0.053	NS
H3: <i>Perceived behavioural control positively affects intention</i>	0.187	0.022	S	0.327	0.001	S	0.877	0.198	<0.001	S
H4-1: <i>Relativism negatively affects attitudes towards behaviour</i>	-0.322	<0.001	S	-0.011	0.922	NS	2.29**	-0.173	0.021	S
H4-2: <i>Idealism positively affects attitudes towards behaviour</i>	0.493	<0.001	S	-0.003	0.985	NS	-3.447** *	0.310	0.002	S
H5-1: <i>Independence in mind positively affects attitudes towards behaviour</i>	0.098	0.126	NS	0.448	0.012	S	1.094	0.380	0.001	S
H5-2: <i>Independence in appearance positively affects subjective norms</i>	0.139	0.150	NS	0.194	0.105	NS	-0.149	0.238	0.019	S
H6: <i>Ethical climate negatively affects subjective norms</i>	-0.262	0.016	S	-0.617	0.023	S	0.098	-0.607	0.001	S
H7-1: <i>Rewards and punishments</i>	0.212	0.035	S	0.121	0.205	NS	-0.733	0.179	0.015	S

Hypotheses	Big firms			Local small firms			Z score	Overall		
	Estimate	P	S/N S	Estimate	P	S/N S		Estimate	P	S/N S
positively affects <i>subjective norms</i> H7-2: <i>Manager's unethical behaviour</i> negatively affects <i>subjective norms</i>	0.100	0.251	NS	-0.019	0.670	NS	-1.174	0.025	0.506	NS
H8-1: <i>Favour-seeking guanxi</i> positively affects <i>subjective norms</i>	-0.096	0.303	NS	-0.171	0.063	NS	-0.220	-0.202	0.013	NS
H8-2: <i>Rent-seeking guanxi</i> negatively affects <i>subjective norms</i>	-0.148	0.099	NS	-0.196	0.001	S	-1.205	-0.147	<0.001	S

Notes: *** p-value < 0.01; ** p-value < 0.05; * p-value < 0.10

6.4.6 Region

The results of comparison based on *region* are presented in Table 44. The significant findings are provided as follows.

Hypotheses H₁ that *attitudes towards behaviour* positively affects *intention*, H₃ that *perceived behavioural control* positively impacts on *intention* and H₈₋₂ that *rent-seeking guanxi* negatively affects *subjective norms* are supported in the north group, the south group and the overall group.

Hypotheses H₅₋₁ that *independence in mind* positively affects *attitudes towards behaviour*, H₆ that *ethical climate* negatively affects *subjective norms*, H₇₋₁ that *rewards and punishments* positively affects *subjective norms* are supported in both the south group and the overall group, but they are not supported in the north group.

Hypothesis H₄₋₁ that *relativism* negatively impacts on *attitudes towards behaviour* is not supported in both the north group and the south group, but it is supported in the overall group.

Hypotheses H₂ that *subjective norms* positively affects *intention*, H₄₋₂ that *idealism* positively impacts on *attitudes towards behaviour*, H₅₋₂ that *independence in appearance* positively impacts *subjective norms* are supported in both the north group and the overall group; however, they are not supported in the south group.

Hypotheses H₇₋₂ that *manager's unethical behaviour* negatively affects *subjective norms* and H₈₋₁ that *favour-seeking guanxi* positively affects *subjective norms* are not supported in the north group, the south group and the overall group.

Table 44: The results of multiple-group comparison for *region*

Hypotheses	North			South			Z score	Overall		
	Estimate	P	S/N S	Estimate	P	S/N S		Estimate	P	S/N S
H₁: <i>Attitudes towards behaviour</i> positively affects <i>intention</i>	0.721	<0.001	S	0.856	<0.001	S	0.762	0.768	<0.001	S
H₂: <i>Subjective norms</i> positively affects <i>intention</i>	0.128	0.043	S	0.052	0.358	NS	-0.945	0.093	0.053	NS
H₃: <i>Perceived behavioural control</i> positively affects <i>intention</i>	0.264	0.004	S	0.212	0.018	S	-0.231	0.198	<0.001	S
H₄₋₁: <i>Relativism</i> negatively affects <i>attitudes towards behaviour</i>	-0.120	0.128	NS	-0.174	0.077	NS	-0.804	-0.173	0.021	S
H₄₋₂: <i>Idealism</i> positively affects <i>attitudes towards behaviour</i>	0.178	0.029	S	0.157	0.105	NS	-0.041	0.310	0.002	S
H₅₋₁: <i>Independence in mind</i>	0.136	0.081	NS	0.267	0.006	S	0.668	0.380	0.001	S

Hypotheses	North			South			Z score	Overall		
	Estimate	P	S/N S	Estimate	P	S/N S		Estimate	P	S/N S
positively affects attitudes towards behaviour H5-2: Independence in appearance positively affects subjective norms	0.159	0.106	S	0.176	0.067	NS	-0.063	0.238	0.019	S
H6: Ethical climate negatively affects subjective norms	-0.176	0.059	NS	-0.287	0.016	S	-1.011	-0.607	0.001	S
H7-1: Rewards and punishments positively affects subjective norms	0.150	0.093	NS	0.233	0.024	S	0.707	0.179	0.015	S
H7-2: Manager's unethical behaviour negatively affects subjective norms	0.044	0.581	NS	0.037	0.675	NS	0.033	0.025	0.506	NS
H8-1: Favour-seeking guanxi positively affects subjective norms	-0.154	0.096	NS	-0.267	0.010	NS	-1.014	-0.202	0.013	NS
H8-2: Rent-seeking guanxi negatively affects subjective norms	-0.186	0.041	S	-0.277	0.005	S	-0.960	-0.147	<0.001	S

Notes: *** p-value < 0.01; ** p-value < 0.05; * p-value < 0.10

6.5 Conclusion of Chapter 6

Through utilising statistical methods including independent sample t-tests and SEM analysis, the hypotheses of this thesis were analysed in this chapter. The significant results are presented as follows:

1. The TPB has been partially supported by the sample of Chinese auditors, since results support that the variables of *attitudes towards behaviour* and *perceived behavioural control* can significantly influence *intention*, but *subjective norms* cannot.
2. Consistent with hypotheses H₄₋₁, H₄₋₂ and H₅₋₁, Chinese auditors' attitudes towards independence issues are negatively affected by their relativistic ideologies, are positively affected by their idealistic ideologies and are positively affected by their perceived audit *independence in mind*.
3. The results show that Chinese auditor's perceived *subjective norms* are positively affected by *independence in appearance*, meanwhile negatively affected by their perceived *ethical climate*, *rewards and punishments*, and their *rent-seeking guanxi* orientations. These results support hypotheses H₅₋₂, H₆, H₇₋₁ and H₈₋₂. The results also show Chinese auditors' *favour-seeking guanxi* orientation negatively affects their perceived *subjective norms*, which is contrary to hypothesis H₈₋₁, which assumes that *subjective norms* is positively affected by *favour-seeking guanxi*. Further, Chinese auditors' perceptions of *manager's unethical behaviour* do not have significance influences on their perceived *subjective norms*, which rejects hypothesis H₇₋₂.
4. Male and female Chinese auditors are both significant in the mean scores of *relativism*, *rent-seeking guanxi*, *manager's unethical behaviour* and *attitudes towards behaviour*. Furthermore, mean scores for *independence in mind* and *perceived behavioural control* are significantly different between Chinese auditors aged 20–30 and 30 above. Moreover, the groups of junior college and bachelor above are significantly different in mean scores of *rent-seeking guanxi*, *attitudes towards behaviour* and *perceived behavioural control*. Further, the mean scores for *independence in mind*, *attitudes towards behaviour*, *subjective norms* and *intention* are significantly different between the Chinese auditors who have less than 5 years' experience and those who have more than 5 years' experience.

Additionally, the mean scores of *attitudes towards behaviour* and *intention* for Chinese auditors in big firms are significantly different from that of auditors in local small firms. Finally, Chinese auditors from the north and the south are significantly different in the mean scores of *independence in mind*. These findings are summarised in Table 45.

Table 45: Summary of findings through t-tests

Demographic variables	Variables	Mean Difference	Sig.
<i>Gender</i>	<i>Relativism</i>	0.850	0.000
	<i>Rent-seeking guanxi</i>	1.030	0.000
	<i>Manager's unethical behaviour</i>	-1.235	0.000
	<i>Attitudes towards behaviour</i>	-0.583	0.011
<i>Age</i>	<i>Independence in mind</i>	0.546	0.003
	<i>Perceived behavioural control</i>	0.555	0.041
<i>Education</i>	<i>Rent-seeking guanxi</i>	-0.637	0.030
	<i>Attitudes towards behaviour</i>	-0.614	0.047
	<i>Perceived behavioural control</i>	-0.670	0.032
<i>Experience</i>	<i>Independence in mind</i>	0.428	0.020
	<i>Attitudes towards behaviour</i>	0.518	0.044
	<i>Subjective norms</i>	0.515	0.047
	<i>Intention</i>	0.587	0.020
<i>Firms</i>	<i>Attitudes towards behaviour</i>	0.655	0.004
	<i>Intention</i>	0.633	0.010
<i>Region</i>	<i>Independence in mind</i>	0.608	0.001

Multi-group comparisons were also conducted based on the control variables. The results are summarised in Table 46.

Table 46: Summary of results of hypotheses tests

Hypotheses	Overall group	Gender		Age		Education		Experience		Firms		Region	
		Male	Female	20–30	Above 30	Junior college	Bachelor above	0–5	Above 5	Big firms	Local small firms	North	South
H₁ : Attitudes towards behaviour positively affects intention	0.768*	0.795*	0.785*	0.731*	0.858*	0.947*	0.772*	0.710*	0.892*	0.773*	0.675*	0.721*	0.856*
H₂ : Subjective norms positively affects intention	0.093	0.103	0.067	0.012	0.142	0.063	0.149*	0.037	0.103	0.081	0.086	0.128*	0.052
H₃ : Perceived behavioural control positively affects intention	0.198*	0.221*	0.253*	0.280*	0.164	0.034	0.037*	0.278*	0.124	0.187*	0.327*	0.264*	0.212*
H₄₋₁ : Relativism negatively affects attitudes towards behaviour	-0.173*	-0.034	-0.187*	-0.207*	-0.063	-0.002	-0.113*	-0.303*	0.045	-0.322*	-0.011	-0.120	-0.174*
H₄₋₂ : Idealism positively affects attitudes towards behaviour	0.310*	0.131	0.215*	0.273*	-0.024	-0.377*	0.273	0.286*	0.001	0.493*	-0.003	0.178*	0.157*
H₅₋₁ : Independence in mind positively affects attitudes towards behaviour	0.380*	0.199*	0.195*	0.093	0.391*	0.926*	0.494*	0.131	0.318*	0.098	0.448*	0.136	0.267*
H₅₋₂ : Independence in appearance positively affects subjective norms	0.238*	0.201	0.104	0.141	0.156	-0.009	-0.088*	0.181	0.094	0.139	0.194	0.159*	0.176*
H₆ : Ethical climate negatively affects subjective norms	-0.607*	-0.266*	-0.235*	-0.166	-0.371*	-0.146	-0.736*	-0.182	-0.289*	-0.262*	-0.617*	-0.176*	-0.287*
H₇₋₁ : Rewards and punishments positively affects subjective norms	0.179*	0.013	0.234*	0.179*	0.132	0.782*	0.377*	0.165	0.126	0.212*	0.121	0.150	0.233*
H₇₋₂ : Manager's unethical behaviour negatively affects subjective norms	0.025	0.044	0.005	0.041	0.000	0.148	0.032	0.046	0.018	0.100	-0.019	0.044	0.037
H₈₋₁ : Favour-seeking guanxi positively affects subjective norms	-0.202*	-0.168	-0.121	-0.120	-0.161	-0.531*	-0.149*	-0.160	-0.146	-0.096	-0.171	-0.154	-0.267*
H₈₋₂ : Rent-seeking guanxi negatively affects subjective norms	-0.147*	-0.083	-0.334*	-0.234*	-0.296*	-0.251*	-0.183*	-0.152	-0.395*	-0.148	-0.196*	-0.186*	-0.277*

* p value is less than 0.05

The results above are discussed in Chapter 7 along with the contributions of this thesis and recommendations for future research.

Chapter 7 Discussion and conclusion

This chapter includes a discussion of the findings presented in Chapter 6 and the conclusions for this thesis. As highlighted in Chapter 1, the aim of the thesis is to investigate Chinese auditors' intentions relating to the maintenance of audit independence specific to auditor-client relationship situations. To achieve this aim, three specific objectives are addressed:

- 1) To examine whether TPB can be applied for Chinese auditors when they are confronted with pressure from their clients.
- 2) To investigate the Chinese auditors' ethical decision-making process through decomposing the independent TPB variables within the KP micro-level model variables within an auditor-client context.
- 3) To compare the differences in ethical decision-making processes between Chinese auditor groups categorised by their demographic variables.

The TPB model, as proposed by Ajzen (1985), suggests that an individual's intention is determined by three independent variables, *attitudes towards behaviour*, *subjective norms* and *perceived behavioural control*. Furthermore, the KP micro-level model decomposes the independent TPB variables drawn from Kleinman and Palmon (2001) to allow for a micro-level auditor-client relationship model analysis, which is discussed in Chapter 3. These variables include *ethical ideologies*, *code of ethics*, *interpersonal relationships*, *ethical climate* and *corporate ethical values*. These are considered as antecedents influencing an auditors' motivation and perception in the process of maintaining independence when encountering conflict situations with their audit clients. Independent TPB variables are decomposed using these variables new to the auditing context. According to the hypotheses in Chapter 4, this thesis posits that *ethical ideologies (relativism and idealism)* and *independence in mind* (a construct of *code of ethics*) impact on *attitudes towards behaviour*; further, *independence in appearance* (another construct of *code of ethics*), *ethical climate* and *corporate ethical values (rewards and punishments and manager's unethical behaviour)* influence *subjective norms*; and finally, *attitudes towards behaviour*, *subjective norms* and *perceived behavioural control* impacts *intention*. The causal relationships among these independent and dependent variables are shown in Chapter 4. Moreover, this thesis also divides Chinese auditors into groups based on their demographic factors (*gender*,

age, education, experience, firms and region), since these factors are considered as antecedents influencing the ethical decision-making process as suggested by prior studies (e.g., Carol, 1982; Glover, Bumpus, Sharp, & Munchus, 2002; Pierce & Sweeney, 2010). Through comparing the differences in the decision-making process between groups, the influences of these demographic variables are investigated.

To address the three specific objectives proposed by this thesis, this chapter is organised as follows. Section 7.1 relates to objective 1, and discusses the results of the hypotheses tests within the TPB model applying the Chinese auditor-client context. It includes the discussion of the relationships between *intention* and *attitudes towards behaviour*, *subjective norms* and *perceived behavioural control*. Section 7.2 relates to objective 2, and discusses the associations of the KP micro-level model variables between the dependent TPB variables. Section 7.3 relates to objective 3, and discusses the differences among the results of the hypotheses tests across the demographic variables. Finally, Section 7.4 discusses the limitations of this study, and recommends avenues for future research.

7.1 Associations within the TPB model

As identified in Chapter 1, this thesis examines whether TPB can be applied for Chinese auditors in an auditor-client context. To address this research objective, this thesis utilises a scenario which describes a scene with an auditor facing pressure from his client. After reading the scenario, the participants respond to questions associated with the TPB variables. The TPB variables explain Chinese auditors' responses for *attitudes towards behaviour* and *perceived behavioural control* but not directly for *subjective norms*.

7.1.1 The association between *attitudes towards behaviour* and *intention*

The results indicate that the variable *attitudes towards behaviour* is the strongest predictor of an auditor's intention to perform an ethical behaviour. This result is consistent with a number of prior studies (e.g., Randall, 1994; Carpenter & Reimers,

2005; Lee & Chen, 2010; Wu et al., 2015). Armitage and Conner (2001) also support this statement based on their review of TPB studies. This result has implications for auditing practice. As the variable *attitudes towards behaviour* has a greater influence on *intention* than other factors, Chinese auditors' unethical behaviours could be controlled or minimised through approaches that alter their attitudes. Carpenter and Reimers (2005) recommend some measures to improve managers' ethical attitudes, such as enforcing a code of ethics. As this thesis also finds that one construct of *code of ethics (independence in mind)* can significantly affect Chinese auditors' attitudes, according to the results of the model integrating with the KP variables it clearly identifies an opportunity to influence the mindset of auditors. Thus, this result indicates that enhancing Chinese auditors' perceptions of the code of ethics could improve their ethical attitudes, and finally, could improve their ethical intentions. Training specifically directed at this process could improve the quality of ethical decision-making in Chinese auditors.

7.1.2 The association between *subjective norms* and *intention*

Contrary to what was hypothesised, the findings do not support a relationship between *subjective norms* and *intention* when examining the TPB separately. The findings in this thesis are consistent with several prior studies (e.g., Chang, 1998; Buchan, 2005; Huang et al., 2008; Kim, Ham et al., 2013), which also do not find a significant relationship between *subjective norms* and *intention*. As Trafimow and Finlay (1996) indicate, *subjective norms* is the TPB component which has the weakest relation with *intention*. However, the association between *subjective norms* and *intention* is found to be significant in several other prior studies (e.g., Carpenter & Reimers, 2005; Bagley et al., 2012; Dalton et al., 2013). Chang (1998) and Kim, Ham et al. (2013) further indicate that *subjective norms* still has an indirect influence on *intention*. Given the importance of *subjective norms* in the Confucian context (Lee & Green, 1991), this variable cannot be ignored in the TPB conceptual framework. There are some possible reasons to explain this discrepancy. Huang et al. (2008) suggest that the culture might reduce an individual's incentives to perform the target behaviour, even though the people around the individual expect them to do so. In the Chinese auditor-client context, the culture may not be so strong to encourage Chinese auditors to resist

pressure from their clients. They may be more inclined to maintain a good relationship rather than refuse their clients. Additionally, the auditors' colleagues or supervisors may not be aware that the Chinese auditors would compromise with their clients' unethical requests, since compromising is a self-initiated behaviour. In this situation, the influence of *subjective norms* could be limited. As Chang (1998) and Kim, Ham et al. (2013) suggest, *subjective norms* may have an indirect influence on *intention* through the mediating effect of other variables. Thus, the association between *subjective norms* and Chinese auditors' *intention* to maintain independence when faced with pressure from clients should be investigated further.

7.1.3 The association between *perceived behavioural control* and *intention*

This thesis finds a significant relationship, as hypothesised, existing between *perceived behavioural control* and *intention*. This result is consistent with prior studies (e.g., Chang, 1998; Carpenter & Reimers, 2005; Henle et al., 2010), which were conducted in a context other than auditing. Chang (1998) further suggests that *perceived behavioural control* is one predictor in most unethical situations, since individuals generally do not have total control over performing unethical behaviour. Chang (1998) also argues that enough resources and opportunities for performing unethical behaviours must exist before carrying out these behaviours, despite an individual's towards performing this behaviour. For instance, if auditors want to acquiesce to their clients' requests, which would damage their independence, they must have requisite authorisation to approve their clients' requests, or they cannot perform the behaviour by agreeing with their clients. Henle et al. (2010) also suggest that adopting control measures which could limit resources and opportunities for performing unethical behaviours would make it more difficult individuals to perform these behaviours. In the case of the Chinese auditor-client relationship, strict policies should be established for managing Chinese auditors' behaviour when they face their clients. Through these policies, auditors will know which actions are appropriate, and which are not. In addition, internal review by an auditor's supervisor is also required to reduce Chinese auditors' opportunities to compromise their ethics. Finally, as suggested by Henle et al. (2010), policing between co-workers is an effective measure to enhance an individual's perception of their *perceived behavioural control*. Hence,

accounting firms could ensure appropriate staff development around client pressures and ethical decision-making including a strengthening of the review processes inherent in the audit processes as a result of the hierarchical structure of audit teams. This could reduce the potential for unethical decisions by auditors resulting from client pressure.

7.1.4 Objective 1 summary

The results support the association between *attitudes towards behaviour* and *intention* and the association between *perceived behavioural control* and *intention*; however, the results do not support the association between *subjective norms* and *intention* within the auditor-client context. Nevertheless, *subjective norms* reflects an individual's perception of social pressure, which is rarely explicit or distinct (Armitage & Conner, 2001), and cannot be ignored (Lee & Green, 1991). In summary, the TPB provides a parsimonious but effective framework to explain and predict Chinese auditors' behaviour when they are faced with pressure from their clients. The TPB can guide managers of accounting firms to regulate their subordinates' unethical behaviour, and can also provide further insights on improving audit independence for regulators and the public.

7.2 Decomposition of the TPB and KP micro-level model variables

To address the second research objective, this thesis decomposes the TPB model with the factors which could affect an auditor's intention within the auditor-client relationship. These factors are drawn from the KP micro-level model, which concentrates on exploring variables affecting the auditor-client relationship. A detailed discussion of the associations between these KP variables and the TPB variables is presented in the following sections and relates to the hypotheses restated in Table 47 below.

Table 47: Hypotheses for decomposing the TPB variables

Number	Hypotheses
H ₄₋₁	<i>Relativism</i> is negatively associated with <i>attitudes towards behaviour</i>
H ₄₋₂	<i>Idealism</i> is positively associated with <i>attitudes towards behaviour</i>
H ₅₋₁	<i>Independence in mind</i> is positively associated with <i>attitudes towards behaviour</i>
H ₅₋₂	<i>Independence in appearance</i> is positively associated with <i>subjective norms</i>
H ₆	<i>Ethical climate</i> is negatively associated with <i>subjective norms</i>
H ₇₋₁	<i>Rewards and punishments</i> is positively associated with <i>subjective norms</i>
H ₇₋₂	<i>Manager's unethical behaviour</i> is negatively associated with <i>subjective norms</i>
H ₈₋₁	<i>Favour-seeking guanxi</i> is positively related with <i>subjective norms</i>
H ₈₋₂	<i>Rent-seeking guanxi</i> is negatively related with <i>subjective norms</i>

7.2.1 The effect of *ethical ideologies* on *attitudes towards behaviour*

As shown in Table 47, and as hypothesised in H₄₋₁ and H₄₋₂, the influence of the two constructs of *ethical ideologies* (*relativism* and *idealism*) significantly impacts on *attitudes towards behaviour*. As expected, *relativism* negatively affects *attitudes towards behaviour*, meanwhile *idealism* has a positive influence on *attitudes towards behaviour*. These results indicate that a Chinese auditor who has higher *idealism* would likely hold a more moral attitude resulting in a higher level of ethical intention. Meanwhile, auditors with a higher level of *idealism* are less likely to hold more moral attitudes, leading to a lower level of ethical intention. These results are consistent with prior studies in auditing the context (e.g., Douglas et al., 2001; Liu, 2013). However, with these prior studies the focus is on exploring the direct relations between *ethical ideologies* and *intention*, while this thesis finds that this relationship is moderated by *attitudes towards behaviour*, which is the strongest predictor of *intention*. Managers of accounting firms can also predict and regulate auditors' ethical actions based on these results. According to the Wang and Calvano's (2013) study, individuals who receive ethics education will have higher level of *idealism*. Hence, managers can strengthen an auditor's *idealism* through ethics education programs, and then, improve their *intention* for ethical actions, again emphasising the importance of professional development for auditors.

7.2.2 The effect of *code of ethics* on attitudes towards behaviour and subjective norms

The antecedent *code of ethics* as it relates to independence has two core variables: *independence in mind* and *independence in appearance*. As shown in Table 47, hypothesis H₅₋₁ that *independence in mind* positively affects *attitudes towards behaviour* is supported. This finding indicates that Chinese auditors' perceptions of *independence in mind* could significantly alter ethical attitudes, and then impact on ethical intention. This finding is consistent with Stevens et al. (2005), who find that enforcing a code of ethics could be beneficial for managers in adopting a code of ethics. Fan et al. (2013) further find that *independence in mind* has a positive influence on accounting student's ethical judgements. In contrast, Somers (2001) indicates that *code of ethics* would not affect attitudes, though it could help to reduce unethical behaviours. This finding also provides implication for practice. Stevens et al. (2005) suggest that ethics training could strengthen a financial manager's ethical decision-making process. Hence, through code of ethics training programs, Chinese auditors' perceived *independence in mind* can be improved, and they will perform more ethically when faced with pressure from their clients.

Consistent with hypothesis H₅₋₂, *independence in appearance* is positively associated with *subjective norms*. This finding is consistent with Davidson and Stevens (2013) which posits that *code of ethics* affects manager's behaviour through the mediation effect of *subjective norms*. Martinov-Bennie and Pflugrath (2009) also indicate that a code of ethics could reinforce ethical environments as perceived by auditors. Meanwhile, they further suggest that internalisation of a code of ethics could help auditors resist pressure from their clients. Hence, the effects of *code of ethics* on Chinese auditors should be continuously reinforced through training programs.

7.2.3 The effect of *ethical climate* on subjective norms

As shown in Table 47, this thesis assumes that *ethical climate* could negatively affect *subjective norms* (hypothesis H₆). The findings support this hypothesis, and show that Chinese auditors' perceptions of *ethical climate* have a negative influence on their perceived *subjective norms*. This finding is consistent with Buchan (2005), who

indicates that an auditor's *ethical climate* could have a negative influence on *subjective norms*. Woodbine (2006) also suggest that "efficacy" and "independence" *ethical climates* are negatively associated with *subjective norms* in organisations. However, other prior studies, such as Wimbush and Shepard (1997) and Barnett and Vaicys (2000), posit a positive relationship between *ethical climate* and *subjective norms*. The difference between the results of this thesis and prior studies may be explained by the cultural features in China. Woodbine (2006) indicates that Chinese organisations are commonly dominated by an "instrumental" type of *ethical climate*, which is a type of egoistic climate and driven by "self-interest". According to the results from Buchan (2005) and Woodbine (2006), "instrumental" *ethical climate* is negatively associated with *subjective norms*. However, the climates in the studies of Wimbush and Shepard (1997) and Barnett and Vaicys (2000) are featured by a principle or deontological ethical dimension. Hence, the *ethical climate* is different in Chinese auditing firms, and has negative influence on the Chinese auditors' perceived *subjective norms*.

7.2.4 The effect of corporate ethical values on subjective norms

As Hunt et al. (1989) suggested, the variable *corporate ethical values* has two bases: *rewards and punishments* and *manager's unethical behaviour*. As hypothesised in H7-1, *rewards and punishments* has a positive influence on Chinese auditors' perceived *subjective norms*. This finding is consistent with several prior studies, such as Woodbine et al. (2012) and See et al. (2014). As Woodbine (2012) suggested, this result indicates the extent to which Chinese auditors' perceptions of policies in their firms (i.e., the reward and punishment process) are adequate. According to this finding, managers can understand the influence of current policies on their employee's preferences and decide whether to support these policies.

However, this thesis finds that Chinese auditors' perceptions of *manager's unethical behaviour* have limited impact on *subjective norms*, which is contrary to hypothesis H7-2. This finding is inconsistent with Valentine et al. (2011) and Woodbine et al. (2012). These studies focus on the direct relationship between *manager's unethical behaviour* and *intention*, different from this thesis which concentrates on investigating the association between *manager's unethical behaviour* and *subjective norms*. Considering that *subjective norms* is not directly associated with an individual's

intention in this thesis, the influence of *manager's unethical behaviour* on the Chinese auditors' ethical decision-making process should be further investigated in future studies.

7.2.5 The effect of interpersonal relationships on subjective norms

According to the results, the findings supports hypothesis H₈₋₂ that *rent-seeking guanxi* is negatively associated with *subjective norms*. This finding is partially support by Fan et al. (2012a), who suggest that *rent-seeking guanxi* is negatively associated with ethical judgements. Fan et al. (2012b) also find that *rent-seeking guanxi* is a negative predictor for accounting students' perception of independence. Similarly, Hwang and Blair Staley (2005) find that *guanxi* could damage Chinese auditors' independence, based on an analysis of accounting frauds in China and the US. The results of this thesis also add support to the belief which views *guanxi* as unethical, and demonstrate the negative significant associations between *rent-seeking guanxi* and *subjective norms*.

However, contrary to hypothesis H₈₋₁, the results show that *favour-seeking guanxi* is also negatively associated with Chinese auditors' perceived *subjective norms*. This finding is not consistent with several prior studies. For instance, Fan et al. (2012a) find that *favour-seeking guanxi* positively affects Chinese auditors' ethical judgements, indicating that this type of *guanxi* could positively affect their perceptions of opinions from important others. Furthermore, Han et al. (2012) suggest that development of *guanxi* could be beneficial for students to build up trust with their supervisors, who are the most important others. However, there are also other conflicting results about the influence of *favour-seeking guanxi* on *subjective norms*. For example, Fan et al. (2012b) find that *favour-seeking guanxi* is not a predictor for accounting students' ethical behaviour. The explanation for the differences between the results of this thesis and prior studies may lie in the transformation of the Chinese auditing professional environment. DeFond, Wong and Li (2000) suggest that Chinese auditors' independence has been continuously improved since China's adoption of new auditing standards. Chinese auditors may realise that too close interpersonal relationships with their clients would damage their independence. This close personal relationship could also give rise to a conflict with the opinions of their colleagues or supervisors who

expect auditors to behave independently. Hence, Chinese auditors may be coming more aware of the moral implications and avoid some behaviour which was accepted in the past when they communicate with their clients. However, the inconsistency in the findings suggests that this is an area for further research.

7.2.6 Objective 2 summary

To address the specific objective 2, which concerns the Chinese auditors' ethical decision-making process, this section discusses the results about the relationships between the TPB variables and the KP micro-level model variables. Based on the discussion above, Chinese auditors' *attitudes towards behaviour* are positively affected by their idealistic positions and perceptions of *independence in mind*. Further, their relativistic ethical positions also negatively influence their *attitudes towards behaviour*. Training programs for professional ethics would help Chinese auditors to restrain their relativistic position and to internalise their perceptions of codes of ethics. These measures would eventually improve their ethical intentions. Chinese auditors' perceived *subjective norms* are positively affected by their perceptions of *independence in appearance* and *rewards and punishments*, and negatively affected by their perceptions of *ethical climate* and *guanxi* orientation (*favour-seeking guanxi* and *rent-seeking guanxi*). Based on these findings, managers could choose to support appropriate policies for affecting Chinese auditors' perceptions of social influences, and then change their intention for ethical behaviour.

7.3 The influence of demographic information on the Chinese auditors' decision-making process

According to the third research objective, the Chinese auditors' ethical decision-making process is analysed based on demographic variables in Chapter 6. The results for the differences between groups based on *gender, age, experience, education, firms* and *region* are discussed below.

7.3.1 Gender

Gender is the demographic variable which attracts more researcher's interests than any other variable in the studies of ethical decision-making (O'Fallon & Butterfield, 2005). In this thesis, the influences of gender is investigated by categorising Chinese auditors into male and female groups. According to the SEM results, there is little difference on the ethical decision-making process between the female group and the overall group, through Chinese female auditors' perceived *subjective norms* as not affected by *independence in appearance*. Compared with the overall group, Chinese male auditors have a different decision-making process. Their attitudes are not affected by their *ethical ideologies (relativism and idealism)*, but are only affected by their perceived *code of ethics (independence in mind)*. Further, their perceived *subjective norms* are not affected by *independence in appearance, rewards and punishments, favour-seeking guanxi* or *rent-seeking guanxi*. Hence, these results indicate that the management system in Chinese accounting firms has no influence on Chinese male auditors, since their ethical decision-making process is not affected by *rewards and punishments*. Managers should adopt specialised policies and regulations for Chinese male auditors to affect their ethical decision-making process. Furthermore, Chinese male auditors do not consider *interpersonal relationships (favour-seeking guanxi and rent-seeking guanxi)* as predictors in their decision-making process. However, female auditors recognise *interpersonal relationships* as negative factors, and are aware that *guanxi* could damage their perceived *subjective norms*. These differences could be explained by O'Fallon and Butterfield's (2005) review, which points out that females are more sensitive than males when they evaluate ethical issues. Rent studies, such as Walker, Smither, & DeBode (2012), also have similar results and support the above statements.

7.3.2 Age

Compared with the overall group, Chinese auditors' attitudes over the age of 30 are only affected by their perceived *code of ethics (independence in mind)*, but not affected by their *ethical ideologies (relativism and idealism)*, Furthermore, they recognise *rent-seeking guanxi* and *ethical climate* as negative predictors for *subjective norms*; meanwhile Chinese auditors between 20 and 30 years of age do not. This result

indicates that older Chinese auditors are more sensitive to ethical issues, and have higher ethical levels. This statement is consistent with Kohlberg's (1969) theory, which indicates that individuals develop their ethical reasoning from a lower to higher level as they mature and become more experienced. Several prior studies (e.g., McMahon & Harvey, 2007; Walker et al., 2012; Woodbine et al., 2012) also support the proposition that age has a positive influence on the ethical decision-making process. However, the results of this thesis show that *perceived behavioural control* is not a predictor for older Chinese auditors' ethical intention. The results also show that the mean scores of *perceived behavioural control* for auditors aged 30 are less than that for auditors aged 20–30. This indicates that older Chinese auditors perceive less behavioural control, compared with their younger counterparts. It can also be inferred that older Chinese auditors seem to have more opportunities and resources to compromise with their clients. Hence, managers in firms should adopt additional measures to manage older Chinese auditors' behaviour when these auditors are confronted with pressure from their client.

7.3.3 Education

In the samples, most Chinese auditors hold a bachelor degree or above. The association between *attitudes towards behaviour* and *code of ethics (independence in mind and independence in appearance)* is not supported in the junior college group. This result demonstrates the importance of tertiary education in ethical decision-making, and is consistent with several prior studies, such as Kracher Chatterjee, and Lundquist (2002) and Pierce and Sweeney (2010). A recent study, Cahan and Sun (2015) also indicate that education has a positive influence on an auditor's ethical decision-making process. Wang and Calvano (2015) further argue that ethics education should be set as an important goal for business schools. Continuous improvements in ethics education will eventually enhance students' ethical decision-making. Furthermore, compared with auditors in the junior college group, the association between *subjective norms* and *intention* is supported for auditors in the bachelor above group. It seems that auditors who have a higher education level are more likely to accept advice from other people, and to take actions as important others expected. However, as the findings in this study are limited by the sample size, the influence of *education* should be investigated further.

7.3.4 Experience

To investigate the influence of *experience* on the ethical decision-making process, the samples are divided into the 0–5 years group and the above 5 years group according to their professional years, as stated in Chapter 6. Compared with the 0–5 years group, the auditors' attitudes in the above 5 years group are not affected by their *ethical ideologies*, but they are affected by their perceived *code of ethics (independence in mind)*. This result indicates that auditors who have more than 5 years' experience recognise the importance of *code of ethics* and consider this variable as an antecedent influencing their *intention*, mediated by the variable *attitudes towards behaviour*. However, *code of ethics* does not affect the auditors' ethical decision-making process in the 0–5 years group. This finding suggests that Chinese auditors are aware of the significance of *code of ethics* when they have more experience. This statement is also supported by Dawson (1997), who suggests that the greater experience individuals have, the more moral standards they would perceive. Furthermore, Chinese auditors in the above 5 years group are aware that *rent-seeking guanxi* is a negative predictor in their decision-making process, whereas, auditors in the 0–5 years group do not. This result indicates that Chinese auditors with more experience recognise that maintaining close *interpersonal relationships (rent-seeking guanxi)* would damage their independence. This statement is supported by Glover et al. (2002), who argue that individuals would be aware of what is ethically accepted and what is not with more years of experience. Finally, Chinese auditors' intention in the above 5 years group is not affected by their *perceived behavioural control*. Chang (1998) pertains that *perceived behavioural control* represents perceptions of the existence of resources and opportunities for performing unethical behaviour. This result indicates that Chinese auditors with more experience may feel that they have sufficient resources and opportunities to compromise with their clients when faced with pressure from their clients. Hence, managers in accounting firms should adopt adequate measures to reduce the opportunities for experienced auditors' to compromise decision making with their clients.

7.3.5 Firms

This thesis also compares the differences in the ethical decision-making process between auditors in big firms and in small local firms. Compared with their counterparts in small local firms, Chinese auditors in big firms are less likely to be affected by their *guanxi* orientation. This finding adds support for the belief that large firms have more ability to resist pressure from clients to perform unethical behaviours (Appelbaum, Deguire, & Lay, 2005). However, the findings also reveal that *code of ethics* has little impact on Chinese auditors in big firms. This result indicates that auditors in big firms do not recognise the importance of *code of ethics*. This finding contrasts with Fan et al. (2012a) and Bagley et al. (2012) who find that big firms have better ethics training for their employees. The possible explanation for this discrepancy is that individuals perceive a greater sense of importance in small firms, and have a higher level of moral reasoning (Weber, 1990). Based on reviewing related studies, Ford and Richardson (1994) conclude that the size of organisation is negatively associated with the employee's ethical behaviour. Hence, the influence of *firms* is mixed and needs further investigation.

7.3.6. Region

Multi-group comparison based on the control variable *region* has some interesting findings. Firstly, the association between *intention* and *subjective norms* can be supported in the north group, whereas it is not supported in the south group. Cliff (1996) indicates that the north part of China is "more steeped in Confucianism than other parts of China" (p. 9). Lee and Green (1991) further indicate that individuals prefer to follow important other's opinions in regions with high levels of Confucianism. Hence, Chinese auditors in the north are more likely to perform as important others expect than their counterparts in south China. Furthermore, the auditors' ethical decision-making process in south China is less likely to be influenced by their *ethical ideologies* (including *relativism* and *idealism*) than auditors in north China. Redfern and Crawford (2004) suggest that the culture in southern part of China is more similar to Western culture than that in the northern part of China. Hence, auditors in south China may adopt a more independent and fair perspective when confronted with pressure from clients. Finally, the results indicate that auditors in south China are affected by

ethical climate and *rewards and punishments*, whereas auditors in north China are not. This finding suggests that accounting firms in south China may have a better management system than that in north China. The impact of this local cultural influence on the ethical decision-making process should be further investigated in future studies.

7.3.7 Objective 3 summary

To discuss the results addressing the third research objective, this thesis compares the differences in the ethical decision-making process between groups based on demographic variables (*gender, age, experience, education, firms and region*). The findings have some interesting implications. First, the influence of demographic variables can be demonstrated because there exist differences in Chinese auditors' ethical decision-making between the groups of male and female, 20–30 years and above 30 years, junior college and bachelors and above, 0–5 years and above 5 years, big firms and local small firms, and south versus north China. Furthermore, Chinese female auditors seem to be more sensitive to ethical issues such as *rent-seeking guanxi* than their male counterparts. Moreover, the results indicate that Chinese auditors with more experience and older would be more sensitive to ethical issues (e.g., *rent-seeking guanxi*). However, specialised measures should be adopted by managers to reduce to opportunities for audits to compromise client decisions, because it seems that these auditors perceive less behavioural control. Additionally, the importance of education is demonstrated through comparisons between the groups of junior college and bachelor above. Finally, it seems that local culture plays an important role in the differences in the ethical decision-making process between various areas. The findings in relation to demographic variables provide interesting results suggesting the need for future study.

7.4 Contributions summary

Firstly, this thesis fills a gap in the literature and expands the application of the TPB into the Chinese auditor-client context. As reviewed in Chapter 2, there is a large number of prior studies that apply the TPB in the business context. However, only a

few of them (e.g., Buchan, 2005; Tan et al., 2015) refer to auditors' ethical intention. Buchan (2005) conducts his study in a Western context, while Tan et al. (2015) focus on the Chinese auditor's intention when faced with pressure from their supervisors. Different from Tan et al. (2015), this thesis concerns the effectiveness of TPB in the Chinese auditor-client relationships, due to the importance of this relationship in Chinese society. The results reveal the factors influencing Chinese auditors' intention when they feel pressure from their clients, and provide suggestions on how to improve Chinese auditors' moral intentions.

Secondly, this thesis also decomposes the TPB constructs to further explore the Chinese auditors' ethical decision-making process. Focusing on the auditor-client context in China, this thesis is the first to explore the association between *attitudes towards behaviour* and *ethical ideologies*, and the association between *attitudes towards behaviour* and *code of ethics (independence in mind)*. Further, this thesis also investigates the influences of *code of ethics (independence in appearance)*, *ethical climate*, *corporate ethical values* and *interpersonal relationships on subjective norms*. Through analysing these associations within the conceptual frameworks, this thesis provides empirical evidence for the public and regulators to deeply understand the Chinese auditors' ethical decision-making process within the auditor-client context. Thus, regulators could adopt measures and policies to improve Chinese auditors' intentions to maintain independence.

Thirdly, through reviewing the TPB and the KP micro-level model, this thesis addresses an existing gap in the literature and provides avenues for future studies. As mentioned in Chapter 2, TPB has been widely utilised in business researches. Prior reviews, such as Armitage and Conner (2001) and Michaelidou and Hassan (2014), cannot provide a comprehensive and up-to-date sketch of TPB's application in the business context. Hence, the findings associated with the TPB applications in this thesis can help researchers to utilise TPB more effectively to investigate the ethical decision-making process in a business context. Furthermore, this thesis is the first to examine the KP micro-level in the auditor-client context in China. The KP micro-level model is a useful conceptual framework to investigate antecedents influencing an auditor's ethical intention within the auditor-client context, based on reviewing findings from related prior studies. The variables in the KP micro-level model are discriminated by searching for empirical evidence from previous research. The

findings in this thesis can be beneficial for researchers concerned with auditors' ethical intention within the auditor-client context.

Finally, this thesis investigates the influence of demographic variables by comparing the differences in ethical decision-making between groups. Although several prior studies (e.g., Bagley et al., 2012; Musbah et al., 2016) explore the association between demographic variables and an individual's intention, few of them are concerned with the effects of these variables on an individual's ethical decision-making process. Thus, the results of multiple-group comparison in this thesis could provide implications about how different groups make their ethical decisions when they deal with their clients. These results not only help regulators take proper measures to enhance Chinese auditors' moral reasoning level, but also shed a light on future research to further investigate the influences of demographic variables allowing for a more focused and nuanced approach.

7.5 Limitations and future avenues

7.5.1 Limitations of this thesis

In reviewing this thesis a number of limitations are highlighted. First, the results should be considered in light of the inherent deficiencies associated with a self-reported survey process. As Fan et al. (2013) suggest, participants may conceal their real ideas about the items on questionnaires. They may consciously or unconsciously provide responses which are close to the "right" answer to be achieved by the survey, but which are not their real thoughts.

Second, the findings of this thesis should also be considered in light of a non-response bias. Participating in the survey is voluntary, and the responding rate is 36.6%. As such a non-response bias for the results may exist.

Third, the results of this thesis also suffer the limitations associated with the Ethical Position Questionnaire. Through this questionnaire, developed by Forsyth (1980), this thesis examines the Chinese auditors' *ethical ideologies* based on two constructs: *idealism* and *relativism*. However, Forsyth (1980) proposes four dimensions (situationists, absolutists, subjectivists and exceptionists) based on *idealism* and *relativism*. Hence, generalisation of results in this thesis may be limited

Finally, as there is a time and resources limit for the researcher, the number of participants in the different areas are not equally distributed. The majority of respondents are drawn from the northern areas in China (i.e., 167, 54.6%). Thus, generalisation of the findings may be limited. Furthermore, most of participants in the sample hold a bachelor degree (i.e., 203, 66.3%). Participants with master degrees or above are very few (i.e., two PhD and 33 masters, 11.5%). These deficiencies make it difficult to analyse the influences of *education* and *region* on the Chinese auditors' ethical decision-making process.

7.5.2 Suggestions for future research

The results of this thesis raise specific questions and provide some avenues for future studies. First, this thesis finds that *subjective norms* is not directly associated with *intention*. However, as several prior studies (e.g., Chang, 1998; Buchan, 2005; Huang et al., 2008) suggested, *subjective norms* has an indirect influence on *intention* through affecting other variables. Hence, future studies should concentrate on exploring whether there is any indirect relationship existing between *subjective norms* and *intention* in the Chinese auditor-client context.

Second, it is worth re-examining two associations within the research model. The first one is the relationship between *manager's unethical behaviour* and *subjective norms*, since *manager's unethical behaviour* makes no contribution to the research model in any of the groups. The second one is the relationship between *favour-seeking guanxi* and *subjective norms*. In this thesis, *favour-seeking guanxi* is found to be negatively associated with *subjective norms*, which is contrary to the results of prior studies. Thus, the survey should be re-conducted to make sure that Chinese auditors view *favour-seeking guanxi* as a negative predictor.

Third, as mentioned, Forsyth's (1980) theory of *ethical ideologies* proposes four dimensions of ideologies. However, most prior studies (e.g., Woodbine et al., 2012; Liu, 2013; Wang & Calvano, 2015) only utilise two constructs: *idealism* and *relativism*. Examining Chinese auditors based on four dimensions would provide a better understanding of their ethical orientation and fill in the literature gaps.

Finally, the influence of demographic variables (*gender, age, education, experience, firms* and *region*) on the ethical decision-making process needs to be investigated further. This thesis compares the differences of the ethical decision-making process between groups categorised on demographic variables. The results provide a limited understanding about the effects of these variables. However, the sample size in this thesis is still small and relatively homogenous. See et al. (2014) state that “had the samples been larger individual assessments would have been possible”. Thus, more participants are needed so that each group categorised by demographic variables would have enough respondents.

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Appendix

Appendix 1: Cover letter for survey (in English)

Information Sheet for An investigation of the moral intentions of Chinese auditors: Conflicts associated with maintaining independence in auditor-client relationship situations

Dear Respondent,

I am a doctoral candidate in the School of Accounting at Curtin University in Western Australia. My supervisor is Dr Ying Han Fan, Professor Glenda Scully, and Dr Gordon Woodbine. The aim of this study is to identify internal, external and situational behavioral factors that influence the moral intentions of Chinese auditors in order to maintain independence within auditor-client relationship situations.

Now, we would like to invite you to participate in this survey by answering the attached questionnaire this time. The survey will take approximately 30 minutes to complete and there are no right or wrong answers. All the answers will remain confidential and anonymous. Results will be analyzed in general, without reference to specific individuals. The data will only be reviewed by the research team members.

Your participation is voluntary. There are no prejudices or negative consequences if you do not participate in this study. Your consent to use the data is assumed if you return the questionnaire. You can change your mind at any time and withdraw from the study without giving a reason. However, once you have submitted a survey, you cannot withdraw your data.

Your participation in this study is greatly appreciated and we thank you for the time you will spend participating this survey. If you have any queries, please feel free to contact Ruchuan Jiang (Ph: +61 0434459921 or email: ruchuan.jiang@curtin.edu.au) or Dr. Ying Han Fan ((Ph: +61 8 9266 2857 or email: y.fan@curtin.edu.au).

Curtin University Human Research Ethics Committee (HREC) has approved this study (HREC number: HRE2016-0225). Should you wish to discuss the study with someone not directly involved, in particular, any matters concerning the conduct of the study or your rights as a participant, or you wish to make a confidential complaint, you may contact the Ethics Officer on +61 8 92669223 or the Manager, Research Integrity on +61 8 92667093 or email hrec@curtin.edu.au.

Appendix 2: Survey instrument (in English)

An investigation of the moral intentions of Chinese auditors: Conflicts associated with maintaining independence in auditor-client relationship situations

Section 1

Please place a cross [x] in the appropriate box:

1. What is your gender

- Male
- Female

2. Please indicate your age range

- 20–30
- 31–40
- 41–50
- 51–60
- Over 60

3. Please indicate the length of your audit work experience

- 0–5years
- 6–10years
- 11–15years
- 16–20years
- Over 20years

4. Please indicate which type of firm you are currently work in

- International Big4
- Chinese Big8
- Other

5. Please indicate which part of China your firm is located

- Northern (e.g., Beijing, Jinan)
- Southern (e.g., Guangzhou, Shenzhen)
- Eastern (e.g., Shanghai, Hangzhou)
- Central (e.g., Wuhan, Zhengzhou)
- Others -----

Section 2: Ethical ideologies

The following statements represent commonly held opinions but there are no right or wrong answers. Please circle the one number which describes your view of each question.

	Strongly disagree								Strongly agree
One should make certain that his/her actions never intentionally harm another even to a small degree	1	2	3	4	5	6	7	8	9
Risks to another should never be tolerated, irrespective of how small the risks might be	1	2	3	4	5	6	7	8	9
Potential harm to others is always wrong, irrespective of the benefits to be gained	1	2	3	4	5	6	7	8	9
One should never psychologically or physically harm another person	1	2	3	4	5	6	7	8	9
One should not perform an action which might in any way threaten the dignity and welfare of another individual	1	2	3	4	5	6	7	8	9
If an action could harm an innocent other, then it should not be done	1	2	3	4	5	6	7	8	9
Deciding whether or not to perform an act by balancing the positive consequences of the act against the negative consequences of the act is immoral	1	2	3	4	5	6	7	8	9
The dignity and welfare of people should be the most important concern in any society	1	2	3	4	5	6	7	8	9
It is never necessary to sacrifice the welfare of others	1	2	3	4	5	6	7	8	9
Moral actions are those which closely match the ideal of the most 'perfect' action	1	2	3	4	5	6	7	8	9
There are no ethical principles that are so important that they should be part of any code of ethics	1	2	3	4	5	6	7	8	9
What is ethical varies from one situation and society to another	1	2	3	4	5	6	7	8	9
Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person	1	2	3	4	5	6	7	8	9
Different types of moralities cannot be compared to 'rightness'	1	2	3	4	5	6	7	8	9
Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual	1	2	3	4	5	6	7	8	9
Moral standards are personal rules which indicate how a person should behave, and are not to be applied in judging others	1	2	3	4	5	6	7	8	9
Ethical considerations in interpersonal relations are so complex that individuals should be allowed to form their own codes	1	2	3	4	5	6	7	8	9
Rigidly codifying an ethical position that prevents certain types of actions could stand in the way of better human relations and adjustment	1	2	3	4	5	6	7	8	9
No rule about lying can be formulated; whether a lie is permissible or not permissible depends upon the situation	1	2	3	4	5	6	7	8	9
Whether a lie is judged to be moral or immoral depends upon the circumstances surrounding the action	1	2	3	4	5	6	7	8	9

Section 3: Code of Ethics for Certified Public Accountants

To what extent do you agree or disagree with each of these statements about the code of professional conduct? Please circle the one number that best describes your view of each question.

Do you regard it is reasonable to expect auditors:	Strongly Disagree									Strongly agree
to be independent in performing an audit?	1	2	3	4	5	6	7	8	9	
to act with integrity and objectivity in performing an audit?	1	2	3	4	5	6	7	8	9	
to resist clients' pressures to maintain independence?	1	2	3	4	5	6	7	8	9	
to avoid a close relationship with clients?	1	2	3	4	5	6	7	8	9	
to avoid an employment offer from a client?	1	2	3	4	5	6	7	8	9	
to avoid dependency on fees from certain clients?	1	2	3	4	5	6	7	8	9	
to avoid a conflict of interest with clients?	1	2	3	4	5	6	7	8	9	

Section 4: Interpersonal relationship

Please review the following question and indicate how important each of them is to you by circling the *one answer* that best describes your view of *each question*.

	Strongly Disagree									Strongly agree
In business, it is important to maintain a good network of relationships	1	2	3	4	5	6	7	8	9	
Doing business involves knowing the right people	1	2	3	4	5	6	7	8	9	
Developing the right contacts helps in the smooth running of a business	1	2	3	4	5	6	7	8	9	
One must always build and maintain social relationships with others in case their services are needed in the future	1	2	3	4	5	6	7	8	9	
Being in the 'inside' circle helps in obtaining preferential treatment	1	2	3	4	5	6	7	8	9	
Returning favour for favour is part of doing business	1	2	3	4	5	6	7	8	9	
Maintaining good relationships is the best way to enhance business	1	2	3	4	5	6	7	8	9	
Gift giving is an important aspect in business success	1	2	3	4	5	6	7	8	9	
In business, back door deals are alright as long as everyone prospers	1	2	3	4	5	6	7	8	9	
Power exchange relationships are normal in Chinese business	1	2	3	4	5	6	7	8	9	
Using bureaucratic privilege is common practice in business	1	2	3	4	5	6	7	8	9	

Section 5: Organizational ethical context

To what extent do you agree or disagree with each of these statements about the organizational ethical context? Please circle the one number that best describes your view of each question.

	Strongly Disagree									Strongly agree
People here are expected to comply with the law and professional standards	1	2	3	4	5	6	7	8	9	
Everyone here is expected to follow organizational rules and procedures	1	2	3	4	5	6	7	8	9	
In this organization people protect their own interests	1	2	3	4	5	6	7	8	9	
Each person in this organization is able to decide for themselves what is right and wrong	1	2	3	4	5	6	7	8	9	
The most efficient way is the right way in this organization	1	2	3	4	5	6	7	8	9	
The major consideration here is what is best for everyone in the organization	1	2	3	4	5	6	7	8	9	
Managers in my firm often engage in behaviours that I consider to be unethical	1	2	3	4	5	6	7	8	9	
In order to succeed in my firm, it is often necessary to compromise one's ethics	1	2	3	4	5	6	7	8	9	
Top management in my firm has let it be known that unethical behaviours will not be tolerated	1	2	3	4	5	6	7	8	9	
If a manager in my firm is discovered to have engaged in unethical behaviour that results primarily in personal gain (rather than firm gain), he or she will be promptly reprimanded	1	2	3	4	5	6	7	8	9	
If a manager in my firm is discovered to have engaged in unethical behaviour that results in firm gain (rather than personal gain), he or she will be promptly reprimanded	1	2	3	4	5	6	7	8	9	

Section 6: Please read the following case and answer the questions

Mr. Wang is a licensed CPA and a member of the CICPA. He and Yong Zhang, a classmate and good friend of his, started their own accounting practice about three years ago. Their business has been growing slowly but steadily. They have established a good niche market in tax and accounting work. However, they would really like to start doing some small business audits for better competing with other accounting firms in the region.

Chang Hong Construction is one of Mr. Wang's first clients. Its owner is Ms. Li Ping, who has been a friend of his family for many years. During the past three years, Mr. Wang has done some consulting work for the company, including bookkeeping and the tax returns. He has also profited from her, as she not only introduces many other clients, but also consults him before making major business decisions and even invites him to attend board meetings of her company.

Recently, Mr. Wang has accompanied Ms. Li to the bank when she was seeking a loan. She jokingly introduced him to the loan officer with this statement: "I have my three business partners, my board, the government and my CPA. But only the CPA stands on my side." The banker seemed content with the loan application so far, but suggested that the bank's loan committee would really like to see some audited financials. "That should be no problem," said Ms Li. "My CPA here knows pretty well about my business, no matter its internal or external."

Action: CPA Wang accepts this audit engagement.

Please consider the above scenario then circle the **one** which best answer describes your view on CPA Wang's action.

1. Do you think CPA Wang's decision to take this audit engagement is

1 (Good)	2	3	4	5	6	7	8	9 (Bad)
1 (Ethical)	2	3	4	5	6	7	8	9 (Unethical)
1 (Wise)	2	3	4	5	6	7	8	9 (Foolish)
1 (useful)	2	3	4	5	6	7	8	9 (Useless)

Using your own experience as a basis, respond to the following questions as if you are in CPA Wong's situation. Please circle the **one** which best answer describes your view of **each question**.

2. Most people (e.g., family members, colleagues, close friends etc.) who are important to me would probably think I should take this audit engagement

1 (Strongly agree)	2	3	4	5	6	7	8	9 (Strongly disagree)
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3. Most people (e.g., family members, colleagues, close friends etc.) who are important to me will look down on me if I take this audit engagement.

1 (Strongly agree)	2	3	4	5	6	7	8	9 (Strongly disagree)
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4. No one (e.g., family members, colleagues, close friends etc.) who is important to me thinks it is OK to take this audit engagement.

1 (Strongly agree)	2	3	4	5	6	7	8	9 (Strongly disagree)
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5. For me to accept this audit engagement is

1 (Very easy)	2	3	4	5	6	7	8	9 (Very difficult)
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6. If I wanted to, I could easily accept this audit engagement.

1 (Totally agree)	2	3	4	5	6	7	8	9 (Totally disagree)
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7. The number of events outside my control, which could prevent me from taking this engagement

1 (Totally agree)	2	3	4	5	6	7	8	9 (Totally disagree)
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8. How much would you want to accept this audit engagement described in the scenario?

1 (Very much) 2 3 4 5 6 7 8 9 (Not at all)

9. How likely would you intend to accept this audit engagement described in the scenario?

1 (Extremely likely) 2 3 4 5 6 7 8 9 (Extremely unlikely)

10. I would never take this audit engagement in the future.

1 (False) 2 3 4 5 6 7 8 9 (True)

(Thank you for your participation. It is much appreciated.)

Appendix 3: Cover letter (in Chinese)

一份关于中国审计人员道德意向调查（审计客户关系独立性的影响因素）的信息页

致答卷者，

我是西澳大利亚州科廷大学会计学院的一名博士研究生。我的导师是樊影菡博士，Glennnda Scully 教授及 Gordon Woodbine 博士。本研究的目的是识别影响中国审计人员保持审计客户关系独立性的内、外部及情景因素。

现在我们邀请您来回答后面所附的调查问卷，完成此调查问卷大约会花费您 30 分钟的时间。调查表中的问题没有正确或错误的答案。所有的答卷均采用匿名形式且对外保密，其结果也将是总体分析，不会涉及具体个人。调查问卷的有关信息仅供研究人员阅览。

您的参与是自愿的。若您选择不参与此次研究，不会针对您有任何偏见或负面结果。如果您将调查问卷返还则表示您同意接受这项调查并同意我们使用调查的数据。你可以在任何时候改变主意不参与这项研究，也不需要给予任何原因。但是一旦你提供了问卷，你就不可以再取回你的问卷。

感谢您参加这次问卷调查以及您所花费的时间。如果您有什么疑问可以联系姜汝川（电话：+61 0434459921或 电子邮箱 ruchuan.jiang@curtin.edu.au）或樊影菡博士（电话：+61 8 9266 2857 或 电子邮件信箱：y.fan@curtin.edu.au）。

此研究项目已经取得西澳科廷大学人类研究道德委员会的批准（批文号：HRE2016-0225）。该委员会成员由公众，学者，律师，医生和牧师组成。该委员会的职责是保护和协助调查参与者。若有核实查对的需要，可写信给科廷大学人类研究道德委员会发展研究办公室，邮政地址是：澳大利亚珀斯市科廷大学，邮箱 GPO Box U1987, 邮编 6845 或致电 +61892669223 或, 92667093, 或可发送电子邮件至 hrec@curtin.edu.au。

请您在完成问卷后，将问卷邮寄至下述地址：济南市文化西路 44 号山东大学公共卫生学院；邮编：250012；联系人：刘志东；联系方式：+86 15169140801。再次感谢您的参与

Appendix 4: Survey instrument (in Chinese)

关于中国注册会计师道德意图的调查：在审计-客户关系背景下，保持独立性 所面临的冲突

调查表 1：背景情况

请在相应的方框中打[x 或 √]：

- | | | |
|---------------|---------------|-----|
| 1. 您的性别 | 男 | [] |
| | 女 | [] |
| 2. 您的年龄 | 20 - 30 | [] |
| | 31 - 40 | [] |
| | 41 - 50 | [] |
| | 51 - 60 | [] |
| | 60 以上 | [] |
| 3. 您做审计工作的年限是 | 0-5 年 | [] |
| | 6-10 年 | [] |
| | 11-15 年 | [] |
| | 16-20 年 | [] |
| | 20 年以上 | [] |
| 4. 您所在的公司是 | 国际四大 | [] |
| | 国内八大 | [] |
| | 其他，请注明 _____ | |
| 5. 您公司所在地 | 中国北部（例如北京，济南） | [] |
| | 中国南部（例如广州，深圳） | [] |
| | 中国东部（例如上海，杭州） | [] |
| | 中国中部（例如武汉，郑州） | [] |
| | 中国西部（例如西安，成都） | [] |
| | 其它，请注明 | |

调查表 2：道德理念

请根据以下每一种观念对您的重要程度在相应的数字上划圈或打勾。

	强烈反对									非常同意
一个人应当保证他/她不会伤害到其他人。										
即使带来的风险很小，让他人承担风险的这种行为也是无法被人接受的。	1	2	3	4	5	6	7	8	9	
即使某一行为有利可图，但是由于这种行为会给他人带来伤害，因此也是不可接受的。	1	2	3	4	5	6	7	8	9	
决不能从身心上伤害他人。	1	2	3	4	5	6	7	8	9	
给他人尊严和幸福带来伤害的行为无法接受。	1	2	3	4	5	6	7	8	9	
伤害无辜的人的行为令人无法接受。	1	2	3	4	5	6	7	8	9	
通过对比某种行为的利害关系，来决定是否采取这一行为，是不道德的。	1	2	3	4	5	6	7	8	9	
每一个社会都应当关注人的尊严与幸福。	1	2	3	4	5	6	7	8	9	
任何时候牺牲他人的幸福都是不允许的。	1	2	3	4	5	6	7	8	9	
道德行为总是与”完美”的行为联系在一起。	1	2	3	4	5	6	7	8	9	
没有任何道德准则重要到需要成为法律的一部分。	1	2	3	4	5	6	7	8	9	
关于道德行为的定义，由于环境和社会的变化而不同。	1	2	3	4	5	6	7	8	9	
环境和社会决定一个人的行为是否符合道德标准。	1	2	3	4	5	6	7	8	9	
不能通过比较不同的道德品德来决定，他们中的哪一个是正确的。	1	2	3	4	5	6	7	8	9	
对于我们来说，由于每个人都有相应的道德标准，道德问题可能无法解决。	1	2	3	4	5	6	7	8	9	
道德标准不能用来评判他人的行为，因为这些标准都是私人的。	1	2	3	4	5	6	7	8	9	

由于人际关系中的道德考虑非常复杂，因此应当允许每个人形成自己的道德标准。	1	2	3	4	5	6	7	8	9
严格规范一个人的道德立场，从而阻止某些行为，可能会对人际关系带来负面影响。	1	2	3	4	5	6	7	8	9
人们无法制定法律来禁止撒谎，因为撒谎是否正确要视情况而定。	1	2	3	4	5	6	7	8	9
判断一个谎言是否道德，要对这个谎言所依托的环境作具体的分析。	1	2	3	4	5	6	7	8	9

调查表 3：注册会计师的道德准则

请在根据您对以下会计专业行为准则的认同程度在相应的数字上划圈或划勾。

	强烈反对								非常同意
1. 审计人员在提供审计服务时应当保持独立性。									
2. 审计人员在审计过程中要保持客观公正。	1	2	3	4	5	6	7	8	9
3. 审计人员要有能力拒绝客户的相关要求，从而保持独立性。	1	2	3	4	5	6	7	8	9
4. 审计人员不能接受来自于客户的其他方面的聘用合同。	1	2	3	4	5	6	7	8	9
5. 审计人员应当避免对某一特定客户产生经济依赖性的情形。	1	2	3	4	5	6	7	8	9
6. 审计人员应当避免与客户发生任何冲突。	1	2	3	4	5	6	7	8	9
7. 审计人员应当避免与客户产生过于亲密的关系。	1	2	3	4	5	6	7	8	9

调查表 4: 人际关系

请根据以下关于人际关系的陈述对您的重要程度在相应的数字上划圈或划勾。

	强烈反对									非常同意
1. 在中国，人际关系对于做生意非常重要。										
2. 认识大人物对于做生意的成败至	1	2	3	4	5	6	7	8	9	
3. 和谐的人际关系有助于维持生	1	2	3	4	5	6	7	8	9	
4. 人们应当及时建立与他人的关 系。这些社会资源以后会用到	1	2	3	4	5	6	7	8	9	
5. 属于”内部圈”里的人，有助于获 得优待。	1	2	3	4	5	6	7	8	9	
6. 做生意重要的一部分内容就是礼尚	1	2	3	4	5	6	7	8	9	
7. 送礼是做生意的重要手段。	1	2	3	4	5	6	7	8	9	
8. 保持良好的人际关系有助于生意的 成功。	1	2	3	4	5	6	7	8	9	
9. 保持与客户的亲密关系有助于减少 人际关系方面存在的问题。	1	2	3	4	5	6	7	8	9	
10. 只要所有人都能得到利益，私下交 易也是可以允许的。	1	2	3	4	5	6	7	8	9	
11. 权钱交易在中国非常正常。	1	2	3	4	5	6	7	8	9	
12. 借助官僚权力维持生意非常正常。	1	2	3	4	5	6	7	8	9	

调查表 5: 组织道德环境

请在根据您对以下有关组织道德环境陈述的认同程度在相应的数字上划圈或划勾。

	强烈反对									非常同意
1. 这里的人们被期望遵循法律和专业标准 做事。	1	2	3	4	5	6	7	8	9	

2. 这里的每一个人被期望遵循组织的规则和程序。	1	2	3	4	5	6	7	8	9
3. 在这个组织中，每个人都只在乎个人利益。	1	2	3	4	5	6	7	8	9
4. 在这个组织中的每一个人能够自己决定什么是对的什么是错的。	1	2	3	4	5	6	7	8	9
5. 最有效的方式是在这个组织中最正确的方式。	1	2	3	4	5	6	7	8	9
6. 这里最主要的考虑（重心）是，什么（行为）是对组织中所有人都是最好的。	1	2	3	4	5	6	7	8	9
7. 我公司的经理们通常采取一些我认为是不道德的行为。	1	2	3	4	5	6	7	8	9
8. 为了在我公司中取得成功，一个人的道德妥协有时候是有必要的。	1	2	3	4	5	6	7	8	9
9. 我公司的高层管理人员已经让员工周知，不道德的行为是不能被容忍的	1	2	3	4	5	6	7	8	9
10. 如果我公司的经理们被发现从事（某些）不道德的行为，这些行为的结果主要为满足其个人利益（而不是公司利益），那么他/她将立刻受到斥责	1	2	3	4	5	6	7	8	9
11. 如果我公司的经理们被发现从事（某些）不道德的行为，这些行为的结果主要为满足公司利益（而不是个人利益），那么他/她将立刻受到斥责	1	2	3	4	5	6	7	8	9

调查表 6: 案例分析

请阅读以下案例，并回答案例后的问题。

王先生是一位注册会计师，并是中国注册会计师协会会员。他同他的同学兼好朋友张勇于三年之前就开始会计方面的执业，事业增长缓慢但很稳定。他们在税务以及提供会计服务领域已经获得了相当的位置，但是他们更想做一些小型企业的审计工作，从而在所在地区能更好的与其他会计事务所进行竞争。

长虹建筑公司是他们事务所的首批客户之一。在过去的三年中，王先生为长虹建筑公司做了有关记账以及退税的咨询工作。该公司所有人李萍女士也与王家私交甚笃。李女士不仅经常就她公司重大业务决策咨询王先生，而且时不时邀请王先生参加她公司的董事会议。此外，她还非常照顾王先生的生意，常常给他介绍客户。

最近，王先生应邀陪同李女士去银行贷款。她开玩笑地对银行贷款业务员介绍王先生说：“我有三个商业伙伴，董事会，政府部门和注册会计师。但是只有注册会计师一直支持我。” 贷款业务员对贷款申请比较满意，不过建议他们提供银行贷款委员会更乐意看到的财务审计报告。” 没有问题”，李女士说，“我的注册会计师对我的公司了如指掌”。

行为：王先生接受了对长虹建筑公司进行审计的业务。

请根据以上案例情景，在九级量表中选出最符合您对王先生审计行为看法的选项，并在相应的数字上画圈。

1. 您如何看待王先生接受长虹建筑公司审计业务的这一决定？

- | | | | | | | | | |
|-----------|---|---|---|---|---|---|---|------------|
| 1非常好 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9非常不好 |
| 1非常符合职业道德 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9绝对不符合职业道德 |
| 1非常明智的 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9非常不明智的 |
| 1非常有利的 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9完全没有作用的 |

结合自身经验，回答以下问题。假设您是王先生，请在九级量表中选出最符合您对以下陈述观点的选项，并在相应的数字上画圈

2. 大多数对我非常重要的人（例如家庭成员、同事、亲近的朋友等）可能认为我会接受长虹建筑公司的审计业务。

- | | | | | | | | | |
|-------|---|---|---|---|---|---|---|--------|
| 1非常同意 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9非常不同意 |
|-------|---|---|---|---|---|---|---|--------|

3. 大多数对我非常重要的人（例如家庭成员、同事、亲近的朋友等）会看不起我如果我接受长虹建筑公司的审计业务。

- | | | | | | | | | |
|-------|---|---|---|---|---|---|---|--------|
| 1非常同意 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9非常不同意 |
|-------|---|---|---|---|---|---|---|--------|

4. 对我非常重要的人（例如家庭成员、同事、亲近的朋友等）没人认为我会接受长虹建筑公司的审计业务。

- | | | | | | | | | |
|-------|---|---|---|---|---|---|---|--------|
| 1非常同意 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9非常不同意 |
|-------|---|---|---|---|---|---|---|--------|

5. 对我而言接受长虹建筑公司的审计业务是

- | | | | | | | | | |
|-------|---|---|---|---|---|---|---|------|
| 1非常容易 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9非常难 |
|-------|---|---|---|---|---|---|---|------|

6. 如果我想，接受长虹建筑公司的审计业务是非常容易的

1完全同意 2 3 4 5 6 7 8 9完全不同意

7. 许多我无法控制的事情会阻止我接受长虹建筑公司的审计业务

1完全同意 2 3 4 5 6 7 8 9完全不同意

8. 您认为上述情境中长虹建筑公司审计业务的可接受程度是

1完全可以接受 2 3 4 5 6 7 8 9完全不能接受

9. 您对上述情景中长虹建筑公司审计业务的可接受程度为:

1极有可能接受 2 3 4 5 6 7 8 9完全不能接受

10. 我绝不会接受上述长虹建筑公司的审计业务

1错误 2 3 4 5 6 7 8 9正确

(再次感谢您的合作)