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THE INFLUENCE OF INDIVIDUAL, TEAM AND CONTEXTUAL FACTORS ON EXTERNAL AUDITORS' WHISTLE-BLOWING INTENTIONS IN BARBADOS

P. A. ALLEYNE

PhD

UNIVERSITY OF BRADFORD

2010

THE INFLUENCE OF INDIVIDUAL, TEAM AND CONTEXTUAL FACTORS ON EXTERNAL AUDITORS' WHISTLE-BLOWING INTENTIONS IN BARBADOS

Towards the development of a conceptual model of external auditors' whistle-blowing intentions

Philmore Alvin ALLEYNE

Submitted for the degree of Doctor of Philosophy

School of Management

University of Bradford

2010

ABSTRACT

Philmore Alvin ALLEYNE

**THE INFLUENCE OF INDIVIDUAL, TEAM AND CONTEXTUAL
FACTORS ON EXTERNAL AUDITORS' WHISTLE-BLOWING
INTENTIONS IN BARBADOS**

Following the collapse of Arthur Andersen in the Enron debacle, whistle-blowing within audit firms has taken on greater importance. Given the profession's requirements to be confidential, independent and to act in the public's interest, there is a need for a model that addresses auditors' whistle-blowing intentions. This thesis presents a conceptual model on whistle-blowing intentions among external auditors, where individual-led antecedents influence whistle-blowing intentions, but are moderated by isomorphic and issue-specific factors.

Survey questionnaires were administered to 226 external auditors, and 18 individual interviews as well as 2 focus groups were conducted in Barbados. Results indicated that individual antecedents (attitudes, perceived behavioural control, independence commitment, personal responsibility for reporting, and personal cost of reporting) were significantly related to internal whistle-blowing, but only perceived behavioural control was significantly related to external whistle-blowing. Partial support was found for the moderating effects of perceived organizational support, moral intensity, team norms and group cohesion on the relationships between the majority of the independent variables (attitudes, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) and internal whistle-blowing. However, partial support was found for the moderating effects of perceived organizational support, moral intensity, team norms

and group cohesion on the relationships between fewer independent variables and external whistle-blowing.

Overall, respondents preferred anonymous internal channels of reporting, and showed a general reluctance to report externally. The presence of an open-door policy, ethics partners, hotline, on-going training and clearly defined policies could encourage whistle-blowing. Further implications for research and practice are discussed.

Keywords: Whistle-blowing, external auditors, individual antecedents, team norms, group cohesion, moral intensity and perceived organizational support.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1: INTRODUCTION

1.0 Introduction

The main objectives of this research are to examine factors (individual, contextual and organizational) that are likely to influence whistle-blowing intentions among external auditors in Barbados, to understand the decision-making process with respect to reporting, the mechanisms within the firm, and the consequences and benefits of reporting such an act. Whistle-blowing has been viewed as an important control mechanism in organizations to detect and prevent wrongdoing (Hooks, Kaplan and Schultz, 1994). Whistle-blowing becomes very important within audit firms, as these firms strive to improve the image and reputation of the profession.

Since the collapse of Enron and closure of the auditing firm of Arthur Andersen, the profession has been under scrutiny for the ethical decision-making of its members. Beu, Buckley and Harvey (2003) argued that researchers are seeking to explain why individuals act ethically in some situations and act unethically in others. Given that individuals have varied ethical decision-making processes, researchers will be looking for causal explanations. Researchers have argued that ethical decision-making processes involve a complex interaction between individual, organizational and issue-related factors (Jones, 1991). This thesis puts forward and tests a conceptual model of factors that are likely to influence whistle-blowing intentions among external auditors in Barbados, using both quantitative and qualitative approaches.

This chapter is organised as follows. The first section examines the background to the study on whistle-blowing. The second section presents the motivation and contributions of the study. The third section discusses the main concepts of whistle-blowing and highlights cases of whistle-blowing. The fourth section presents a brief review of research theory on ethics and whistle-blowing. The fifth section provides the

research objectives and is followed by the next section that gives a brief overview of the proposed conceptual model. The seventh section discusses the research methods and is followed by the eighth section which presents a summary of the findings. The ninth and tenth sections highlight boundaries of the study and the definitions of key terms used in the thesis, respectively. The final section outlines the structure of the thesis.

1.1 Background to the study

The collapse of Enron and subsequent closure of the audit firm, Arthur Andersen, has cast the profession in a bad light, as questions were raised about the ethical values of the profession. The profession needs to recruit ethical members to improve its image and restore the confidence of the public in its ability to do quality audits. The profession has specific standards and rules which direct the work of auditors and stress the importance for auditors to be objective, independent and avoid any personal and financial relationships with clients (Umar and Anandarajan, 2004). The profession and public acknowledge the importance of ethics to the decision-making process of audit practitioners, since they are required to make independent judgements on audit issues.

The exercise of professional judgment and its related concept, auditor independence, imply that auditors must act ethically (Thorne, 1998). It is this distinctive feature of the audit that separates auditing from other professions (Mautz and Sharaf, 1961). Auditors are expected to fearlessly report any wrongdoing, such as fraud in the client's accounting records. In addition, an independent auditor should make the sound ethical decision to report wrongdoing done by the client as part of his/her prescribed role as the external auditor. However, the problem is exacerbated when an audit staff member commits wrongdoing within the audit firm. From an ethical

standpoint, the wrongdoing should be reported by the observer of the act to a person or entity that is capable of correcting the wrongdoing. The literature has shown a general reluctance on the part of auditors to report wrongdoing committed by their colleagues (Finn and Lampe, 1992; Kaplan, 1995; Kaplan and Whitecotton, 2001).

1.2 Motivation and contributions of the study

As a result of several accounting scandals (e.g. Enron and World Com) in 2001, the accounting profession's image was severely tarnished and it was felt that the auditors involved were not independent because they failed to report the accounting irregularities when discovered. As a result, the question or dilemma that surrounds the profession is whether there is a moral or legal right to report questionable acts, either internally or externally. In the Enron case, none of Arthur Andersen's audit staff blew the whistle on the firm or the wrongdoer, when its partner-in-charge instructed them to shred the documents to obstruct justice (Toffler and Reingold, 2003). Furthermore, none of the audit staff members were willing to report the irregularities occurring at Enron, where the audit firm assisted in facilitating Enron's management to misrepresent the financial statements.

In light of these public scandals, the profession now struggles to repair its image and credibility as independent experts, who are there to serve in the public's interest and at the same time, maintain confidentiality to the client, as well as to comply with specified codes of professional conduct. There are some benefits of ensuring that audit staff report wrongdoing within an audit firm (e.g. a partner or co-worker committing the questionable act). For example, a staff member can assist in enhancing the firm's ethical reputation and the quality of the audit service provided by the firm. In addition to the benefits of disclosing wrongdoing, it has been argued that good ethics within the

firm makes good business sense (Cowton, 2009). In contrast, failure to report wrongdoing can cause the closure of the firm, (as in the case of Enron's auditors, Arthur Andersen), possible lawsuits and prosecution from authorities. Thus, the results of this study can help auditors or audit firms to develop the appropriate recruitment and selection strategies to ensure that "ethically-minded" employees are recruited.

The present study contributes to the auditing ethics research by applying a theoretical model of whistle-blowing intentions. This model incorporates the influences of individual attributes (attitudes, perceived behavioural control, desired moral approbation, personal responsibility for reporting, independence commitment and personal cost of reporting) and moderating variables such as team factors (group cohesion and team norms) and contextual factors (perceived moral intensity and perceived organizational support). It is designed to measure these variables as they apply to whistle-blowing intentions. This model represents an integrative approach to the study of whistle-blowing among external auditors in the profession. It identifies a number of paths by which whistle-blowing could result, including various factors derived from existing whistle-blowing and ethical decision-making models. Moreover, the model reconfigures Ajzen's (1991) theory of planned behaviour, in which an individual's attitude towards the behaviour, subjective norm and perceived behavioural control predict behavioural intentions.

This thesis posits that team factors (such as group cohesion and team norms), and contextual factors (such as perceived organizational support and perceived moral intensity) will also have significant effects on the likelihood to whistle-blow. In particular, this model recognises that auditors usually work in teams. Organizations can readily appreciate how teams and other contextual factors interact to create an "ethically minded" organization. Moreover, there is a dearth of research on the

influence of team-based variables on the ethical decision-making process and indeed, whistle-blowing among external auditors. Overall, this study will test the influence of these factors on whistle-blowing intentions among external auditors.

Most research tends to focus more on the individual characteristics but neglect the importance of contextual variables. This study addresses this gap by focusing on Jones' (1991) moral intensity construct and its related dimensions, which considers the contextual factors (i.e., the characteristics of the issue itself). Perceived moral intensity is important, given that one of its dimensions, magnitude of consequences, is similar to the term or concept of materiality in auditing. Jones, Massey and Thorne (2003) and Cohen and Martinov-Bennie (2006) suggested that there was a need for research to explore the influence of perceived moral intensity on auditors' intentions to whistle-blow, given the requirements of the Sarbanes Oxley Act (2002).

Many of the previous studies on whistle-blowing are limited in the understanding they can provide about ethical decision-making among auditors. Prior models have not been designed specifically for the external audit field and neglect the importance of group factors on the whistle-blowing process (e.g. Graham, 1986). The current study attempts to bring greater depth of understanding to auditor decision-making in audit-related issues. It attempts to identify the extent to which individual attitudes, as well as other factors such as desired moral approbation and group dynamics influence auditors' decisions to report questionable acts. This study seeks to provide additional support for, and extends the scope of the theory of planned behaviour (Ajzen, 1991), and incorporates some constructs of the model of principled dissent (Graham, 1986) and applies them to whistle-blowing among external auditors.

There is significant pressure on the accounting profession to uphold high ethical standards. Gaining a better understanding of the factors that will encourage auditors to

report questionable acts has practical implications for the audit profession, accounting policy and auditing ethics research. The results of this study can aid professional associations and policy makers in developing and incorporating adequate ethics requirements in their codes of professional conduct. This should increase auditors' ethical awareness and willingness to report wrongdoing committed by audit staff and clients. Specifically, the results can also help auditors and audit firms to decide on the appropriate training needs for their staff.

The thesis has an additional academic value, in that it tests a whistle-blowing model in the context of the external audit environment. Prior research on whistle-blowing intentions showed that the majority of these studies have used convenient samples of students, who were asked to role play the functions of practicing auditors (e.g., Curtis, 2006). However, these experiments may not fully simulate how practising auditors in the profession would behave when faced with unethical acts committed by colleagues. Therefore, this research seeks to study whistle-blowing from a practical perspective, by surveying and interviewing auditors in audit firms, who will provide opinions on organizational wrongdoing. Finally, this study hopes to gain insights about the extent to which auditors perceive themselves as moral agents. These perceptions about the profession's role in auditor independence may have implications for accounting education.

1.3 Whistle-blowing and its importance

Whistle-blowing is perceived as the act of disclosing information internally or externally in the public's interest. Near and Miceli (1985) defined whistle-blowing as "the disclosure by organization members (former or current) of illegal, immoral or illegitimate practices under the control of their employers, to persons or organizations

that may be able to effect action" (p. 4). Within this definition, illegal, immoral or illegitimate acts can include professional misconduct, misallocation of resources, theft and bullying in an organization (Miceli, Near and Dworkin, 2008). Near and Miceli (1985)'s definition has been cited extensively in prior studies, including auditing (e.g. Miceli, Near and Schwenk, 1991; Hooks et al., 1994; Kaplan, 1995) and management (Keenan and Krueger, 1992).

Miceli et al. (2008) differentiate this definition from other researchers' definitions on the grounds that whistle-blowing is antisocial as well as prosocial, principled (Graham, 1986), altruistic and positive, and is not limited to cases where specific motivations may be present. Near and Miceli (1985) argued that whistle-blowing can be both internal and external, since external whistle-blowers usually report the wrongdoing to someone that they trust internally first, before they go externally. For example, Enron's Sherron Watkins first wrote a memo to Ken Lay, the CEO about the accounting irregularities, and then her memo was later publicly disclosed in her testimony to Congress (Miceli et al., 2008).

Whistle-blowing has become popular especially in the US, with the high profile cases of whistle-blowers (Callahan, Dworkin, Forte and Schipani, 2002). Time Magazine selected three whistle-blowers (Enron's Sherron Watkins, WorldCom's Cynthia Cooper and Coleen Rowley of the FBI) as its "Persons of the Year" for 2002 (Lacayo and Ripley, 2002). At Enron, Sherron Watkins sent a memo to CEO Kenneth Lay, highlighting the irregularities in the company. FBI agent, Coleen Rowley disclosed that her agency had mishandled a probe of a terrorist suspected of being involved in the September 11, 2001 attack in the United States. At WorldCom, Cynthia Cooper, the internal auditor, alerted the Board of Directors' Audit Committee of $3.8 billion in losses caused by accounting fraud, and commenced an internal audit, in spite

of a request by the company's Chief Financial Officer (CFO) to delay the investigation (Patel, 2006).

However, some whistle-blowers have suffered tremendously from the effects of retaliation as illustrated in the following cases. In 1996, Jeffrey Wigand, Vice President of research, disclosed that Brown & Williamson Tobacco Corporation was fully aware that tobacco was addictive. As a result, Wigand experienced loss of earnings, retaliation and was threatened with legal action for breach of confidentiality. In 2004, Satendra Kumar Dubey of India blew the whistle on corruption in the National Highways Authority of India (NHAI), by writing to the Prime Minister's office and requesting anonymity, which was ignored (Patel, 2006, p.11). He was later found murdered.

1.4 Research theory

Whistle-blowing can be viewed as an internal control mechanism in organizations since it can assist in highlighting and preventing wrongdoing, and is important for both internal and external auditors (Miceli et al., 1991; Hooks et al., 1994). The literature has also revealed that whistle-blowing can solve organizational problems (e.g. Brief and Motowidlo, 1986) and various stakeholders can benefit from the whistle-blowing act, as organizational wrongdoing may be terminated (Miceli et al., 1991). Whistle-blowers are sometimes perceived as loyal and prosocial heroes. However, whistle-blowers have also been branded as being troublemakers and disloyal employees. Within the audit context, whistle-blowing is about reporting questionable acts on wrongdoing committed by co-workers within the audit firm. Auditors, who are potential whistle-blowers, usually act in good faith and in the public's interest.

Potential whistle-blowers may be discouraged from reporting wrongdoing due to fear of retaliation. The literature has shown that this fear of retaliation or

victimization may force the whistle-blower to seek out external (rather than internal) channels to report wrongdoing and unethical acts or remain silent (Near and Miceli, 1995; Camerer 1996; Jubb 1999; Uys 2006). External whistle-blowing may negatively affect the future prospects for the whistle-blower and the organization. The literature is divided on whether or not internal reporting of wrongdoing or questionable acts should be regarded as whistle-blowing (Near and Miceli, 1985; Jubb, 1999). This thesis utilises aspects of Near and Miceli's (1985) definition of whistle-blowing, which supports both external and internal reporting on the grounds that both represent a means of dissent or direct challenge to the organization's hierarchy.

Moreover, Mitschow and Langford (2000) contend that there are several conflicts which prevent external auditors from whistle-blowing externally. External auditors are confronted with dual allegiance to the client and acting in the interest of society (Mitschow and Langford, 2000; Brennan and Kelly, 2007). In addition, external auditors may experience the risk of sanctions, lawsuits, loss of licences, and tarnished reputation, if they blow the whistle externally on confidential information about wrongdoing committed by the client and other individuals within the audit firm. Thus, these potential conflicts ought to force the auditor to report internally.

A number of theoretical frameworks for understanding ethical behaviour has been proposed in the literature (e.g. Trevino, 1986; Hunt and Vitell, 1986; Jones, 1991; Lampe and Finn, 1992; Finn and Lampe, 1992; Shaub, Finn and Munter, 1993; Finn, 1995; Trevino and Weaver, 2003). These ethical models or frameworks have utilised theories from social psychology (Kohlberg, 1969; Ajzen, 1991; Rest, 1986) to explain ethical decision-making in business and, specifically, in the area of accounting and auditing. For example, Lampe and Finn (1992) proposed an ethical decision-making

model, following Rest's (1986) model.[1] Lampe and Finn's (1992) model found a link between ethical reasoning and auditors' judgement of ethical code violations. Beu et al. (2003) argued that ethical decision-making is complex and multidimensional. This may be based on how individuals will behave in different ways to the same ethical dilemma, especially in situations where societal moral norms are not sufficiently clear to guide the behaviour. This makes the research task particularly challenging, but all the more worthwhile.

Prior models in auditing or accounting have shown that there are individual, situational and organizational factors influencing whistle-blowing (Arnold and Ponemon, 1991; Finn and Lampe, 1992; Hooks et al., 1994; Finn, 1995; Kaplan, 1995; Kaplan and Whitecotton, 2001). Prior research has shown a general reluctance by audit staff to whistle-blow on colleagues (e.g. Kaplan and Whitecotton, 2001). The various accounting irregularities (e.g. Enron and Arthur Andersen) have caused the public to raise searching questions about the ethical and moral values of a profession that has historically justified its existence based on trust and integrity. The audit profession is faced with ethical dilemmas, resulting from the struggle to act on behalf of the client and in the public's interest (Westra, 1986). Auditor independence is important to the auditing profession, as it enhances the value of the audit function (e.g. Mednick, 1990). Prior research has shown that there are factors which are likely to affect auditor independence (Beattie, Brandt and Fearnley, 1999). These factors include provision of non-audit services, perceived importance of the client and lengthy auditor-client relationships. Specifically, the literature shows that the economic importance of the client to the auditor has been found to be one of the most influential factors likely to impair auditor independence (e.g. Gul, 1991; Bartlett, 1993; Beattie et al., 1999).

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[1] Rest (1986) proposed the four component model of ethical decision-making. Rest suggested that the four stages are recognising the moral issue, making a moral judgment, establishing moral intent and engaging in moral behaviour. Chapter 2 provides a further discussion of Rest's (1986) model.

Codes of professional conduct, such as those of the American Institute of Certified Public Accountants (AICPA), the Certified General Accountants of Canada (CGA) and the Institute of Chartered Accountants of England and Wales (ICAEW) require that a member should be independent in fact and in appearance. It may be the lack of independence that causes the auditor to act unethically. Gendron et al. (2006) introduced a concept called independence commitment, which could support the view that the level of commitment to independence by the auditor, should lead to fair and honest reporting. The PIDA (1998) and Sarbanes Oxley Act (2002) lend regulatory support to whistle-blowing in organizations.

1.5 Research objectives

This study has two main objectives. Firstly, it examines the factors that are likely to encourage or discourage whistle-blowing by external auditors. Secondly, this study seeks to understand the whistle-blowing process, auditors' perceptions of the reporting channels, the control mechanisms within the audit firm, the perceived consequences of reporting, and recommendations for increasing whistle-blowing.

1.5.1 Hypotheses and research questions

The present study is aimed at understanding the individual, situational and organizational factors that are likely to influence whistle-blowing among auditors. The following hypotheses and research questions are presented:

1.5.2 Hypotheses

The specific hypotheses are as follows:

Hypothesis 1a: Attitudes toward whistle-blowing will have a positive, direct effect on whistle-blowing intentions among external auditors.

Hypothesis 1b: Desired moral approbation from others and from self will have a positive, direct effect on whistle-blowing intentions among external auditors.

Hypothesis 1c: Perceived behavioural control will have a positive, direct effect on whistle-blowing intentions among external auditors.

Hypothesis 1d: Independence commitment will have a positive, direct effect on whistle-blowing intentions among external auditors.

Hypothesis 1e: Personal responsibility for reporting will have a positive, direct effect on whistle-blowing intentions among external auditors.

Hypothesis 1f: Personal cost of reporting will have a negative, direct effect on whistle-blowing intentions among external auditors.

Hypothesis 2: Perceived organizational support will moderate the relationships between individual-level antecedents (attitudes, desired moral approbation, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) and whistle-blowing intentions among external auditors.

Hypothesis 3: Group cohesion will moderate the relationships between individual-level antecedents (attitudes, desired moral approbation, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) and whistle-blowing intentions among external auditors.

Hypothesis 4: Team norms will moderate the relationships between individual-level antecedents (attitudes, desired moral approbation, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) and whistle-blowing intentions among auditors among external auditors.

Hypothesis 5: Perceived moral intensity will moderate the relationships between individual-level antecedents (attitudes, desired moral approbation, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) and whistle-blowing intentions among external auditors.

The development and justification of these hypotheses will be discussed in Chapter 4 on the presentation of the proposed conceptual model.

1.5.3 Research questions

The research questions to be addressed in this study are:

Research Question 1:   How willing are external auditors to whistle-blow on wrongdoing committed by colleagues in the audit firm?

Research Question 2:   What are the preferred channels of reporting wrongdoing among external auditors?

Research Question 3:   What is the role of individual factors on external auditors' ability to whistle-blow?

Research Question 4:   What is the role of team and contextual factors on external auditors' ability to whistle-blow?

Research Question 5:   What are the perceived consequences of whistle-blowing among external auditors?

Research Question 6:   How can whistle-blowing be increased among external auditors?

1.6 A brief review of the proposed conceptual model

1.6.1 Description of the model

The proposed conceptual model incorporates the influences of individual attributes (attitudes toward whistle-blowing, desired moral approbation, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting), team factors (group cohesion and team norms) and contextual factors (perceived moral intensity and perceived organizational support). Specifically, the model proposes that the relationships between individual-level antecedents and whistle-blowing intentions will be moderated by group cohesion, team norms, perceived moral intensity and perceived organizational support. This model is shown in Figure 1.

Figure 1: **Conceptual model of whistle-blowing intentions among external auditors**
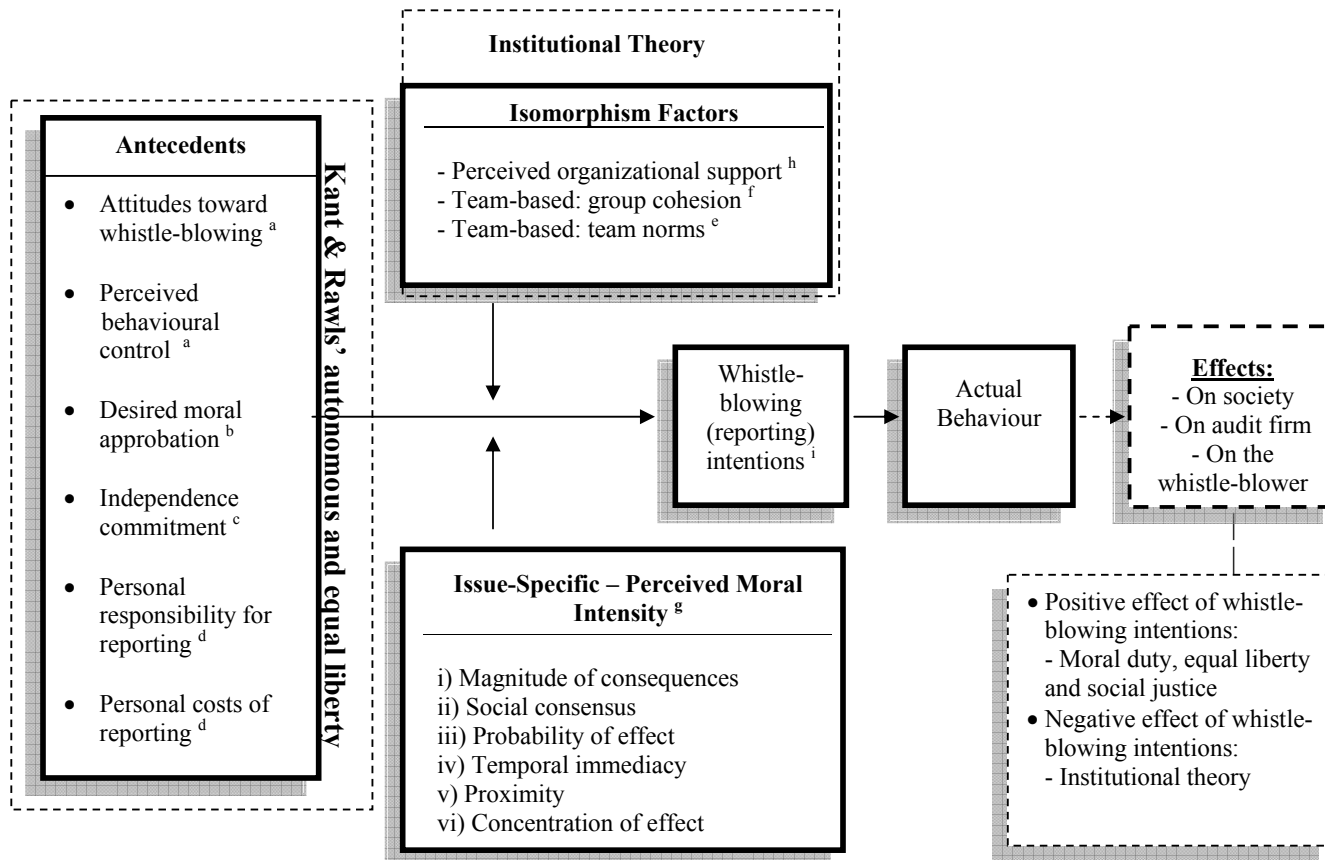
Institutional Theory

Isomorphism Factors

- Perceived organizational support [h]
- Team-based: group cohesion [f]
- Team-based: team norms [e]

Antecedents

- Attitudes toward whistle-blowing [a]
- Perceived behavioural control [a]
- Desired moral approbation [b]
- Independence commitment [c]
- Personal responsibility for reporting [d]
- Personal costs of reporting [d]

Kant & Rawls' autonomous and equal liberty

Whistle-blowing (reporting) intentions [i]

Actual Behaviour

Effects:
- On society
- On audit firm
- On the whistle-blower

Issue-Specific – Perceived Moral Intensity [g]

i) Magnitude of consequences
ii) Social consensus
iii) Probability of effect
iv) Temporal immediacy
v) Proximity
vi) Concentration of effect

- Positive effect of whistle-blowing intentions:
  - Moral duty, equal liberty and social justice
- Negative effect of whistle-blowing intentions:
  - Institutional theory

a   adopted from Ajzen (1991);
b   adopted from Jones and Ryan (1997);
c   adopted from Gendron et al. (2006);
d   adopted from Graham (1986) and Schultz et al. (1993);
e   adopted from De Jong et al. (2005);
f   adopted from Price and Mueller (1986) and Schminke and Wells (1999);
g   adopted from Jones (1991) moral intensity;
h   adopted from Eisenberger et al. (1990);
i   adopted from Park and Blenkinsopp (2009)
The rest of the model is based on the review and understanding of how the external audit works.

1.6.2 Attitude towards the behaviour, perceived behavioural control and behavioural (whistle-blowing) intention

The theory of reasoned action (Fishbein and Ajzen, 1975) and its successor, the theory of planned behaviour (Ajzen, 1991) have been utilised in numerous ethics studies to predict ethical behaviour (Madden et al., 1992; Kurland, 1995; Chang, 1998; Gibson and Frakes, 1997; Flannery and May, 2000; Buchan, 2005; Carpenter and Reimers, 2005). The theory of reasoned action posits that behavioural intention may be influenced by one's attitude towards the behaviour (favourable/unfavourable assessment) and subjective norm (referent others). The intention to perform a specific behaviour is considered as a reliable predictor of that behaviour (Fishbein and Ajzen, 1975). Ajzen (1991) later added the antecedent variable, perceived behavioural control (obstacles and opportunities), to form the theory of planned behaviour. This current study uses whistle-blowing intention as a measure of behavioural intention.

1.6.3 Desired moral approbation

Moral approbation is the need for approval from self and others when making moral decisions (Jones and Ryan, 1997). A major limitation of most cognitive moral development and ethical decision-making models is the inconsistency between

determining the right decision and performing the actual behaviour (Jones and Ryan, 1997). Kohlberg (1976) argues that an individual's moral direction is derived from referent sources such as parents, family, peers and social norms. Jones and Ryan (1997) argued that individuals rely on these referent groups for approval when making moral decisions.

However, the influence of desired moral approbation on ethical intentions has not been tested empirically in the audit context. In an auditing environment, auditors are likely to rely on the approval of their team members, co-workers, management or even themselves before making ethical judgments or engaging in an ethically-sensitive situation. Hence, this variable is deemed particularly important in the current study.

1.6.4 Personal responsibility for reporting

Graham (1986) presented a model of reporting questionable acts, which proposed that the attribute of personal responsibility for reporting has a positive impact on the likelihood of whistle-blowing. Graham (1986) argued that the decision to whistle-blow is contingent on the whistle-blower's perception of moral responsibility to report wrongdoing in the organization. Prior research has found support for this variable within the audit environment (Miceli et al., 1991; Kaplan and Whitecotton, 2001). Thus, this variable will be incorporated into the proposed conceptual model.

1.6.5 Personal cost of reporting

Another important variable is the assessment of the personal cost of reporting. This variable has been proposed as being influential in the intention to whistle-blow (Graham, 1986; Schultz, Johnson, Morris and Dyrnes, 1993). It is perceived that individuals will make an initial assessment of personal costs (risk of retaliation or

reprisals), before engaging in whistle-blowing. Prior research has found support for this variable (Schultz et al., 1993; Kaplan and Whitecotton, 2001).

1.6.6 Independence commitment

Auditors are required to be independent. This has been inculcated through membership in professional associations, training and codes of professional conduct. Gendron, Suddaby and Lam (2006) proposed a relatively new variable, independence commitment, which is to be used in the model. This construct tests the individual auditor's level of commitment to independence requirements established by the profession and the public. This variable may be considered important to this study, since the independence of the observer may influence reporting intentions.

1.6.7 Perceived organizational support

The model incorporates perceived organizational support as a moderator. Social exchange theory proposes that staff members who perceive that the organization will provide satisfactory support when reporting wrongdoing will be more likely to do so, since there would be little fear of retaliation. Similarly, employees who feel a strong sense of organizational commitment or loyalty tend to reciprocate to the organization with positive work behaviours. In contrast, those employees who may feel that they are being treated unfairly in the organization are more likely to exhibit anger, resentment and dissatisfaction. The norm of reciprocity postulates that when individuals are dissatisfied with the organization or their superiors, they may embark on negative work behaviours such as possible sabotage via malevolent reporting or non-reporting (Gouldner, 1960). Thus, the organization must provide support in its ethical culture for the employee to be able to whistle-blow effectively.

1.6.8 Group cohesion and team norms

Group cohesion can influence behaviour by setting standards and guidelines. Auditors are requested to work in audit teams on multiple engagements. As a result, norms and the level of cohesion are formed through contact with team members. Social influence research has proposed that individuals are usually influenced by their peers (Ajzen, 1991; Jones, 1991). Hooks et al. (1994) argued that group norms may colour one's perception of the seriousness of the act. Being a member of an audit team can force members to conform to the team's norms (which may be ethical or unethical), and which can put pressure on the individual auditor. Given that auditors typically work in teams, it is important to also assess how team norms and group cohesion can influence whistle-blowing. The present study seeks to address this gap.

1.6.9 Perceived moral intensity

An important variable in understanding ethical decision-making is perceived moral intensity (Jones, 1991; Morris and McDonald, 1995; Wright, Cullinan and Bline, 1997; Singer and Singer, 1997; Flannery and May, 2000). Jones (1991) suggests that the moral intensity construct focuses on the particular ethical issue, and is quite distinct from the individual's characteristics and the context in which the decision is made. Jones (1991) believed that decision-makers respond differently depending on the nature of the ethical issue under examination. He proposed six dimensions: (1) magnitude of consequences, (2) social consensus, (3) temporal immediacy, (4) concentration of effect, (5) probability of effect and (6) proximity. Prior research supports the contention that these six components exert significant influence over ethical decisions (Morris and McDonald, 1995; Singer and Singer, 1997). For example, magnitude of consequences is similar to materiality used by auditors to make judgments (Shafer et

al., 1999). Thus, moral intensity may be considered as being important within a whistle-blowing context.

1.7 Research method

This study was conducted in two phases, using positivist and interpretivist research methodologies. The positivist approach has been used extensively in ethical decision-making and whistle-blowing literature (See Kaplan and Whitecotton, 2001). Positivist (quantitative) research relies on hypothesis-testing (theory testing), using various statistical tools (Babbie, 2004). This type of research is essentially based on numerical measurements and its main goal is generating predictive conclusions concerning a particular theory and its implications. Quantitative research is primarily concerned with deductive logic and seeks to predict and explain some phenomenon.

On the other hand, qualitative research is based on non-numerical information (Babbie, 2004; Neuman, 2003). In contrast to quantitative research, qualitative research assumes that data can be adequately collected and interpreted as a result of the close relationship between the researcher and the subject (Neuman, 2003). Thus, qualitative research refers to an approach on how to gain knowledge of the world, by obtaining descriptions, experiences, meanings and performing analyses of the behaviour of human beings from their own perspectives.

Qualitative research also provides comprehensive descriptions of the social and practical settings that are being investigated and allows for rich insights into the topic from the participants' perspectives. Finally, the qualitative researcher seeks to understand the phenomenon under study in its actual context. This differs significantly from the objective approach of the quantitative researcher, which seeks to separate the subject from any unnecessary intervention (Babbie, 2004; Holtzhausen, 2007).

1.7.1 Quantitative phase

Firstly, a survey approach was performed to test the hypotheses in the proposed conceptual model. The research design employed by this study involved the use of a self-administered questionnaire, which collected responses from 226 external auditors in audit firms in Barbados. The study used scenarios to assess the whistle-blowing intentions among external auditors. Alexander and Becker (1978) defined scenarios as "short descriptions of a person or a social situation which contain precise reference to what are thought to be the most important factors in the decision-making or judgment-making processes of respondents" (p. 94). Respondents were asked to place themselves in the position of the agent in the scenario and to express the likelihood that they would report the wrongdoing in the case.

The current study used several established scales to measure the independent, moderator and dependent variables. The dependent variables, auditors' reporting intentions (i.e. internal and external whistle-blowing), as well as attitudes toward whistle-blowing and perceived behavioural control were measured by adapting scales developed by Park and Blenkinsopp (2009). Desired moral approbation and independence commitment were measured by adapting scales developed by Ryan and Riordan (2000) and Gendron et al. (2006), respectively. Schultz et al.'s (1993) single-item scales were used to measure personal responsibility for reporting and personal cost of reporting. Perceived moral intensity was measured by adapting scales developed by Coram, Glovovic, Ng and Woodliff (2008) and Schultz et al. (1993). Perceived organizational support was measured by adapting a scale developed by Eisenberger, Cummings, Armeli and Lynch (1997), while group cohesion and team norms were measured by using scales developed by Price and Mueller (1986) and De Jong, De

Ruyter and Lemmink (2005) respectively. Finally, the study also measured social desirability response bias, using Paulhus' (1989) impression management scale.

1.7.2 Qualitative phase

Qualitative research can provide rich insights into a research topic such as whistle-blowing. Its nature suggests that the researcher can gain knowledge through the subject's interpretation of experiences, meaning and opinions on the phenomenon under study (Babbie, 2004). The study used 18 semi-structured interviews and 2 focus groups to obtain opinions and feelings on whistle-blowing in the audit firms. This qualitative approach helped to contextualise the findings from the quantitative phase.

1.8 Summary of the findings

1.8.1 Results of the hypotheses tests

Results from the quantitative phase show that auditors were more likely to whistle-blow internally rather than externally. It was found that attitudes, perceived behavioural control, independence commitment, and personal responsibility for reporting were significantly and positively related to internal whistle-blowing intentions, while personal cost of reporting had a negative and significant effect on internal whistle-blowing. In contrast, perceived behavioural control had a significant and positive relationship with external whistle-blowing. Thus, hypotheses H1a, H1c, H1d, H1e and H1f were fully supported for internal whistle-blowing, but support was only found for H1c (perceived behavioural control having a positive relationship on external whistle-blowing). It was noticeable that H1b (desired moral approbation) did not have a significant main effect on internal and external whistle-blowing intentions.

Partial support was found for the moderating effect of perceived organizational support on the relationship between the majority of independent and dependent variables. Specifically, the results show that when perceived organizational support was high, there were significant positive relationships between the independent variables (attitudes, perceived behavioural control, independence commitment and personal responsibility for reporting) and internal whistle-blowing intentions. When perceived organizational support was low, there was a significant negative relationship between personal cost of reporting and internal whistle-blowing intentions. When perceived organizational support was low, there were significant positive relationships between two independent variables (attitudes and perceived behavioural control) and external whistle-blowing intentions. When perceived organizational support was high, there was a significant positive relationship between personal cost of reporting and external whistle-blowing. Thus, H2 was partially supported.

Partial support was also found for the moderating effects of group cohesion on the relationship between the independent and dependent variables. Specifically, when group cohesion was low, there were significant positive relationships between the independent variables (attitudes, perceived behavioural control, independence commitment and personal responsibility for reporting) and internal whistle-blowing intentions. It was also found that when group cohesion was low, there was a significant positive relationship between independence commitment and external whistle-blowing intentions. When group cohesion was high, there was a significant positive relationship between personal cost of reporting and external whistle-blowing. Thus, H3 was partially supported.

Partial support was also found for the moderating effects of team norms on relationship between the independent and dependent variables. Specifically, when team

norms were high, there were significant positive relationships between the independent variables (attitudes, desired moral approbation, independence commitment and personal responsibility for reporting) and internal whistle-blowing intentions. It was also found that when team norms were high, there were significant positive relationships between the independent variables (attitudes and independence commitment) and external whistle-blowing intentions. Thus, H4 was partially supported.

Partial support was found for the moderating effects of moral intensity on relationship between the independent and dependent variables. Specifically, when moral intensity was high, there were significant positive relationships between the independent variables (attitudes, perceived behavioural control, independence commitment and personal responsibility for reporting) and internal whistle-blowing intentions. It was also found that when moral intensity was low, there was a significant negative relationship between personal cost of reporting and internal whistle-blowing. Support was only found for desired moral approbation having a significant positive effect on external whistle-blowing, when moral intensity was low. Thus, H5 was partially supported.

1.8.2 Results of the interviews

The study found that whistle-blowing was perceived as an important and effective control mechanism in the enhancement of the integrity and reputation of the profession and the firm. Respondents generally considered that whistle-blowing includes the internal and external reporting of unethical or illegal acts that occur within audit firms. Attitudes toward whistle-blowing were perceived to positively influence respondents' whistle-blowing intentions. The findings also show that the preferred channel was anonymous and internal reporting among respondents.

23

Personal, organizational and societal consequences of whistle-blowing were considered significant factors influencing whistle-blowing intentions among auditors. It is believed that whistle-blowing will increase trust in the firm and profession, and may reduce political intrusion and possible legal action. Whistle-blowing was perceived as protecting the public's interest, given that respondents perceived whistle-blowing as being ethical. However, most respondents reported that potential whistle-blowers were faced with negative consequences such as reprisals, demotion, harassment and ostracism. It was found that these negative consequences (i.e. high personal costs) were more likely to deter potential whistle-blowers. Interviewees also felt that external whistle-blowing could tarnish the image of the firm and the profession, hence the general reluctance to report externally.

Individual constructs (attitudes, perceived behavioural control, independent commitment, personal responsibility to report and personal cost of reporting) were found to influence whistle-blowing intentions. Most respondents perceived themselves as having some control over reporting unethical acts to internal channels. There was also recognition that independence was critical to reporting and with emphasis placed on being independent in fact and appearance.

Respondents also felt personally responsible for reporting wrongdoing internally, but not externally. These perceptions were derived from moral obligations and the need to act in the public's interest. However, it was perceived that when personal costs for reporting were high, individuals were less likely to whistle-blow. Thus, self-preservation took precedence for all respondents. Interestingly, the need for desired moral approbation revealed conflicting responses, which indicated that individuals held mixed views on their referent sources for moral action. The study

found that at times, individuals looked for self-approval, and at other times, sought approval from others (e.g. superiors) when making ethical decisions.

The study also sought to explore the role of moral intensity. Respondents felt morally intense in situations where the wrongdoing was perceived as being material, serious and could pose harm to others. However, it was found that moral intensity influenced auditors' intentions to report internally rather than externally. This finding showed that auditors were not likely to report wrongdoing externally, even in situations where there was potential harm to others.

The results of the interviews also indicated that when perceived organizational support was high, there was a greater tendency for respondents to engage in internal whistle-blowing, but not externally. This suggests that where the organization embraces whistle-blowing behaviour and provides a supportive culture, individuals are more likely to perceive lower personal costs, and a greater sense of responsibility to report any deviant behaviours that threaten the organization's existence.

Perceived organizational support (i.e. the culture of the audit firm), group cohesiveness and team norms were found to be influential on whistle-blowing intentions. Interviewees cited the group's ethical norms, the relationship with the team and the levels of members of the groups as significant motivators. The majority of respondents perceived that groups were likely to influence whether one acted ethically or unethically. The results from this phase demonstrated that there was the likelihood to whistle-blow internally, when team norms were high and group cohesiveness was low.

Overall, in this phase, the findings show that positive attitudes, greater perceived behavioural control, increased personal responsibility for reporting, higher independence commitment and lower personal costs are likely to influence auditors' intentions to whistle-blow internally, but not externally. Several recommendations were

suggested to promote whistle-blowing behaviour among auditors, namely documenting the whistle-blowing policies and procedures of the organization, providing appropriate ethics training programmes, establishing an independent committee to assess the credibility of the whistle-blowing report, implementing an open-door policy, encouraging the greater use of ethics and risk managers, promoting the use of anonymous channels (i.e. the hotline) and ensuring protection for the whistle-blower (financially and psychologically).

1.9 Boundaries of the study

There are several boundaries that need to be drawn here. Firstly, this research focuses on external auditors working in audit firms. It does not consider internal auditors, who by their own scope, work with the client. External auditors are qualified accountants, who work as individual practitioners or as members of accounting firms (e.g. PricewaterhouseCoopers and Ernst and Young), and issue independent judgments on financial statements of clients. In contrast, the internal auditors are employed by the organization that they audit and perform ongoing appraisals of the organization's internal control system for efficiency and effectiveness.

Secondly, an assumption of most proponents of whistle-blowing is that increased reporting is likely to lead to reduced wrongdoing. This study does not seek to empirically test this argument; rather, it seeks to determine what factors are likely to encourage the reporting of wrongdoing. Several studies have researched the cultural differences of whistle-blowing (e.g. Patel, 1999; Tavakoli, Keenan and Cranjak-Karanovic, 2003). Research has shown that the North American culture is more supportive of whistle-blowing (Miceli et al., 2009). However, this current research does

not seek to measure the influence of culture on whistle-blowing in the Barbados environment.

1.10 Definitions of key terms

The thesis uses several concepts which are defined below:

1. **Attitude:** A disposition or appearance toward a particular action.

2. **Behaviour:** A construct in Ajzen's (1991) Theory of Planned Behaviour which refers to an action undertaken by a person that results from a decision (intention).

3. **Code of ethics:** A set of ethical principles and statements by which members of professional accounting bodies must abide, such as AICPA and ICAEW Code of Ethics.

4. **Desired moral approbation**: The amount of approval required from oneself or others before undertaking moral actions.

5. **Disclosure:** The act of reporting privileged information to internal or external sources.

6. **Ethics:** A system of moral principles relevant to human behaviour in terms of the rightness or wrongness of certain actions.

7. **External auditors:** Members of audit firms hired to assess and evaluate financial statements of their clients or to perform other agreed upon procedures. They are required to be independent.

8. **Group cohesion:** The extent that individuals value their membership in the group.

9. **Independence commitment**: The extent to which the individual auditor considers independence to be binding and enforceable.

10. **Internal auditors:** Employees of a company (client) hired to monitor and evaluate the client's system of internal control.

11. **Intention:** A motivation to act on something.

12. **Moral intensity:** The extent of the individual's moral perceptions of issues. Moral intensity comprises magnitude of consequences, social consensus, probability of effect, concentration of effect, temporal immediacy and proximity (Jones, 1991).

13. **Organizational wrongdoing:** Includes illegal acts or irregular conduct such as stealing and mismanagement, which could negatively affect the organization and society (Near, Rehg, Van Scotter and Miceli, 2004).

14. **Perceived behavioural control**: An individual's belief as to the degree of ease or difficulty it takes to perform a particular behaviour (Bandura, 1997).

15. **Perceived organizational support:** The extent to which the individual perceives that the organization values and supports him or her.

16. **Personal cost of reporting**: An individual's assessment of the level of discomfort (i.e. fear of reprisals or ostracism) in reporting an unethical act.

17. **Personal responsibility for reporting**: The sense of commitment and moral obligation to report an unethical act (Kaplan and Whitecotton, 2001).

18. **Referent group:** Any group that the individual identifies with (e.g. peers or family) that could influence the decision-maker.

19. **Team norms:** The norms and values that regulate acceptable behaviour of group members.

20. **Theory of justice:** A theory that proposes individuals make decisions based on acceptable principles of fairness and impartiality to all involved.

21. **Whistle-blower:** An employee who makes an unauthorized disclosure of information about wrongdoing and illegal acts to internal or external channels.

22. **Whistle-blowing:** The reporting of wrongdoing, illegal and unethical acts by staff members in an organization to internal and external channels that may have the authority to take action (Near and Miceli, 1985).

1.11 Structure of the thesis

The remainder of this thesis is organized as follows. Chapter 2 reviews the relevant literature on auditing and auditor independence and ethics, and explains the need for auditors to be ethical. Chapter 3 reviews the literature on whistle-blowing and its relevance to auditing. It looks at the concept of whistle-blowing, previous whistle-blowing research and the antecedents, correlates and consequences of whistle-blowing.

Chapter 4 describes the conceptual model from which testable hypotheses and research questions are developed.

Chapter 5 describes the research design and methodology, including the sampling procedures, collection of data, and statistical techniques used. Chapter 6 presents the results of the quantitative survey phase, while chapter 7 presents the qualitative findings, which are integrated and discussed with the quantitative results from chapter 6. Finally, Chapter 8 puts forward a discussion of the findings and the implications, highlights the limitations of the study, and offers suggestions for future research.

CHAPTER 2: LITERATURE REVIEW - AUDITOR INDEPENDENCE AND ETHICAL DECISION-MAKING

2.0 Introduction

This chapter reviews the relevant literature on auditor independence and ethical decision-making. Independence is an important factor in the auditors' professional conduct, as it represents the profession's covenant with society. Since auditors' independence is critical to the integrity and objectivity of the external audit function, users and society expect that auditors will always follow strong ethical principles. Auditor independence is based on ethical principles which are guided by the various professional bodies' codes of conduct and the requirement for auditors to report wrongdoing and questionable acts. The audit literature is replete with studies on factors that enhance or compromise auditor independence (Magee and Tseng, 1990; Beattie et al., 1999). However, research on the link between auditor independence and ethical decision-making processes is limited (Windsor and Ashkanasy, 1995). This is even more important within the context of whistle-blowing.

The chapter is organised as follows: The first section examines the nature of auditor independence, and is followed by a section which looks at the importance of auditor independence. The third section reviews the role and status of the auditing profession in society, while the fourth section examines the codes of professional conduct and ethics. The fifth section provides definitions and descriptions of ethics and morality, and is followed by the sixth and seventh sections which examine the audit process in audit firms and several theories of auditor independence, respectively. The eighth section reviews factors that are perceived to influence auditor independence, based on various auditor-client relationships. This chapter then reviews previous literature on ethical decision-making within the auditing and accounting arena. The final section concludes the chapter.

2.1 Nature of auditor independence

Independence provides the foundation of the audit profession and is essential for adding value to the audit of financial statements (Mautz and Sharaf, 1961; Vanasco, Skousen and Santagato, 1997). However, corporate failures and scandals in US companies such as WorldCom and Enron have damaged the level of trust placed in auditors by questioning integrity, independence and ethical values. To regain public trust and confidence, regulators have implemented several control mechanisms such as rotation of audit partners and restrictions on the provision of non-audit services (e.g. Sarbanes Oxley Act, 2002).

The Random House Dictionary of the English Language (1987) defines the term, 'independent' as "not influenced or controlled by others in matters of opinion, conduct, etc.; thinking of acting for oneself…not depending or contingent upon something else for existence, operation, etc" (p. 970). Similarly, the Collins English Dictionary (1998) defines independence as being "free from control in action, judgment, etc., autonomous; not dependent on anything else for function, validity, etc" (p. 783).

The literature offers many different interpretations of auditor's independence (Carey and Doherty, 1966; Mautz and Sharaf, 1961; Higgins, 1962, Berryman, 1974; Moizer, 1985; Flint, 1988; Beattie et al., 1999). For example, Carey and Doherty (1966) provided three definitions of auditor independence. They suggest that auditor independence means (1) being honest, acting with integrity, objectivity and responsibility; (2) the avoidance of relationships that may subconsciously compromise the objectivity of the auditor; and (3) the avoidance of relationships that may impair other users' perceptions of the objectivity of the auditor (Vanasco et al., 1997, p. 498).

31

Moreover, DeAngelo (1981a) defined audit quality as the likelihood of auditors detecting and reporting material errors, breaches and misstatements in the company's financial statements, thus increasing the importance of auditor independence. Moizer (1985) also argued that an independent auditor is expected to disclose all errors, omissions and misstatements, which may affect the fair presentation of the financial statements. External auditors (i.e. audit firms) are engaged to provide an independent opinion on the reliability of a company's financial reports. This claim of independence has been put forward as justification for the existence and need for auditors. Thus, auditor independence is important to all users (e.g. shareholders, financial institutions and employees), who depend on the auditors' report to assess the financial status of the organization (Beattie et al., 1999; Hudaib, 2003).

Beattie et al. (1999, p. 68) also explained that independence in fact is the auditor's ability to maintain an unbiased mental attitude during the audit, and independence in appearance is the observer's perception that the auditor-client relationship is not likely to be considered as a conflict of interest. Many studies have focused on identifying factors that are likely to influence the perceptions of independence (i.e. independence in appearance), since independence in fact is unobservable (Beattie et al., 1999; Fearnley, Beattie and Brandt, 2005).

The International Federation of Accountants (IFAC) Code of Ethics highlighted auditor independence as comprising 'independence of mind' and 'independence in appearance.' IFAC (2010, p. 42) defined 'independence of mind' as

> The state of mind that permits the expression of a conclusion without being affected by influences that compromise professional judgement, thereby allowing an individual to act with integrity and exercise objectivity and professional skepticism. (290.6)

IFAC (2010, p. 42) also defined 'independence in appearance' as

> The avoidance of facts and circumstances that are so significant that a reasonable and informed third party, would be likely to conclude, weighing all the specific facts and circumstances, that a firm's, or a member of the audit team's integrity, objectivity or professional skepticism has been compromised. (290.6)

Vanasco et al. (1997) argued that professional accounting associations have stressed the significance of auditor independence to the auditing profession as being both ethical and professional. Mednick (1990) felt that more emphasis on professional ethics will serve to help solve some of the ethical dilemmas and minimise the perceived threats to auditor independence. For example, the IFAC Ethics Committee has introduced the notion of independence as a salient issue within its ethical guidelines (Vanasco et al., 1997). This governs professional accountants' behaviour within the areas of integrity, objectivity and confidentiality. ICAEW's (2009) Code of Ethics identified five areas as constituting threats to independence: self-interest, advocacy, self-review, familiarity and intimidation. There is general agreement that independence may be perceived as objectivity, which is a state of mind that is free of influences which are likely to compromise judgment. It is observed that the ICAEW, IFAC and AICPA have not focused on the issues or environmental contextual factors (i.e. the moral intensity). It may be argued that the professional codes are vague in their prescriptions, and do not focus on the moral intensity of the issues.

The audit committee is required to recommend the auditor to shareholders, who ratify the appointment and remuneration. The auditor is expected to act independently of the client and on behalf of society. Briloff (1990) argued that this is the auditor's covenant with society. The appearance of auditor independence is regulated by various detailed rules prescribing what should or should not be done. For example, the professional accounting associations have highlighted instances where independence

might be impaired. These areas include fee dependency, personal relationships and financial investment in clients (Alleyne et al., 2006; AICPA, 2006; ICAEW, 2009).

2.2 Importance of auditor independence

Audit quality has been recognised to be directly related to audit independence (DeAngelo, 1981a). The maintenance of audit quality can be viewed as the auditor's competence to discover wrongdoing and ability to refrain from yielding to client's pressure by reporting the wrongdoing (i.e., objectivity) (DeAngelo, 1981a; Watts and Zimmerman, 1986). Fearnley and Beattie (2004) argued that competence and independence can prevent audit failure. However, there is a difference between competence and independence. Competence means that the auditor should be capable of identifying errors, omissions and misstatements, while independence means that the auditor will be able to express an opinion that the financial statements are presented fairly or not (Fearnley and Beattie, 2004). DeAngelo (1981a) argued that any auditor who fails to adhere to auditing standards by performing a poor audit in an attempt to retain a client may risk damage to his or her reputation, which could result in a potential loss of revenue from existing and future clients.

The auditor is hired and paid by the shareholders. Ashbaugh (2004) argued that since top management is the party ultimately responsible for the financial statements, then the audit contract may be seriously affected from the old adage "a dog will not bite the hand that feeds him" (p. 144), and therefore threatens the concept of independence. However, an effective audit committee could provide adequate support to the external auditor, thus allowing the auditor to be able to resist management's pressure to report unethically.

Research has indicated the relative importance of the need for auditors (e.g. Mautz and Sharaf, 1961; Sucher and Kosmala-MacLullich, 2004) by arguing that without being independent, the audit opinion would have little value. Bakar et al. (2005) indicated that the absence of auditor independence was the major contributor to the accounting scandals with WorldCom and Enron. For example, Enron's auditor, Arthur Andersen was viewed as being not independent because its earnings for non-audit services (i.e. consulting fees) exceeded its audit fees (Alleyne et al., 2006). Lindberg and Beck (2004) argued that the auditing profession's reputation was severely tarnished after Enron's debacle.

2.3 The role and status of the profession

The authority granted to professionals is carefully maintained by professional associations, which prescribe regulations, level of training, acceptable professional codes of conduct, justification of the quantum of professional fees, prevention of encroachment from others, and thus promoting exclusivity, and oversight of the preservation of the profession's prestige (Gould and Kolb, 1964, p. 542). Greenwood's five (5) attributes of a profession include a systematic body of theory, authority (i.e. power), sanctioned by society, codes of ethics and a culture (Cosserat, 2004). Perks (1993) listed twenty-two (22) characteristics which help to determine whether a profession has achieved professional status. These 22 characteristics include the following: 1) acquisition of skills, based on theoretical knowledge; 2) the presence of a professional body; 3) a lengthy period of education; 4) the existence of competency tests; 5) undergo training; 6) the need for a practicing certificate (licence); 7) granting job autonomy; 8) existence of professional codes of conduct; 9) regulates itself; 10) perform public service and be altruistic; 11) enjoy exclusivity and legal acceptance; 12)

have control over fees and advertising; 13) benefit from elite status and rewards; 14) have clients; 15) acknowledged as middle-class vocations; 16) are male-dominated; 17) provide assurances; 18) be legitimate; 19) perform rituals; 20) the existence of a remote body of knowledge; 21) the presence of a vast body of knowledge; and 22) provide mobility in society (Perks, 1993; Hudaib, 2003).

Sager (1995) stated that the main features of the accounting profession could be further narrowed down to eight categories: 1) skills influenced by theoretical knowledge, 2) a lengthy period of formal education, 3) test of competence, 4) in-training experience, 5) granting of licences to practitioners, 6) job autonomy, 7) professional bodies and 8) professional codes of conduct. Cowton (2009) suggested that the key characteristics of the profession or professional bodies include having 1) specialist skill and theoretical knowledge, 2) use of discretion and judgment, 3) training, formal certification of competence and licensure, 4) exhibiting independence, self-regulation and requirements for membership as well as discipline, (5) offering personal and financial reward and (6) establishment of ethical codes to guide behaviour.

Professionals ought to have the experience, technical training and necessary skills to be able to practise their craft. They may achieve these competencies through formal education and training. Most professional organizations (AICPA and ICAEW) require prospective members to pass examinations prior to entry into the profession and to provide the required competency. Perks (1993) suggested that in-training experience allows the norms and attitudes of the more experienced practitioners to be passed on to trainees. Licensing (i.e. the attainment of a practicing certificate) is seen as a fundamental part of the professional process, whereby the licensed individual obtains

recognition and membership in the profession (Perks, 1993). The behaviour of the licensed professional is regulated by the profession's code of conduct and ethics.

The professional usually retains some measure of autonomy over his or her work, which engenders a level of independence and provides power and status (Perks, 1993). Professions have professional bodies which serve to elevate members' status, and have stringent requirements for entry. For example, in the accounting profession, members are required to undergo continuing professional education and training, and follow the rules and codes of professional conduct and ethics to achieve the highest standards of professionalism and meet the needs of society (Perks, 1993). Therefore, any member who deviates from the codes of professional conduct may be penalised by the professional bodies.

2.4 Codes of professional ethics

The existence of the professional codes of conduct is deemed important to guide and govern members' behaviour in maintaining an independent attitude of mind and avoiding situations which would lead to loss of objectivity during their audit work (Moizer, 1997). Cowton (2009) argued that professions, such as accounting, through self-regulation, hold themselves "to a higher standard of ethics than ordinarily required by law and conventional morality" (p. 179). As a result, auditors are assumed to act as society's watchdogs and are expected to put society's interests above self-interest (Sikka, Willmott and Lowe, 1989; Porter, 1992).

The profession is guided by codes of professional ethics (Higgins and Olson, 1972). The codes of professional ethics assume that all auditors have the required ethical ability to deal with moral crises and dilemmas. However, it has been argued that the existence of codes cannot prevent unethical practices (Cowton, 2009). For example,

auditors are assumed to have the required psychological ability to resist pressure from management to give a favourable audit opinion in audit conflict situations. Preston, Cooper, Scarbrough and Chilton (1995) argued that independence is the narrative of legitimacy that auditors used to justify society's trust in the profession. Society's trust is based on members of the profession acting ethically and with integrity. Cowton (2009) argued that sound ethics should lead to trust, which can enhance the reputation of the profession, and may be advantageous to the individual member. However, there are times when a member may put the profession at risk by profiting from unethical decisions.

2.5 The meaning of ethics and morality

Ethics is relevant to individuals who are faced with making moral decisions, which may lead to moral issues. The presence of a moral code serves to act as an ethical guideline, which can aid the ethical decision-making of individuals. Flew (1984) defined *morality* or *ethics* as the acceptable standards for regulating human behaviour in order to accomplish life's goals. Jones (1991) argued that ethics includes the making of legal or morally acceptable decisions to society. Payne and Joyner (2006) defined ethics "…as a system of valued principles or practices and the ability to determine right from wrong" (p. 205). Morality and ethics are used interchangeably to mean the same thing. Acting ethically suggests that the individual will be focused on morality rather than the legality of the decision. For example, in most cultures, it is generally accepted that murder and lying are immoral. Although society has laws to prescribe socially acceptable behaviour, individuals who are rational and free thinking human beings, are competent to make moral determinations from their own values, experiences and lifestyles.

Ethical actions are based on the moral rightness or wrongness of a decision. Jones and Ryan (1997) argued that individuals have the choice and knowledge of possible alternatives in making moral decisions. Jones (1991, p. 367) further defined a moral issue as being present where the volitional act of an individual has the potential to harm or benefit others in society.

2.6 The audit process in audit firms

This section briefly explains the audit process and structure of audit firms to contextualise the environment that auditors operate. The auditor uses specific techniques to collect information in the form of evidence in order to give an audit opinion about the organization's accounts. This function is performed by an audit team comprising audit staff that may possess diverse levels of knowledge, experience, qualifications and tenure in the audit firm's hierarchy. For example, the partner, audit managers and seniors, who will be qualified accountants, will be the most experienced staff, while university and high school graduates, who are currently sitting professional accountancy examinations, may be in the lowest position and the least experienced in the audit firm. The team may comprise the partner, audit manager, audit seniors and other junior staff. The senior members of the audit team will plan, supervise, control and review the audit work of junior staff and determine the type of audit opinion to be given. Audit firm members are required to follow the profession's code of ethics or conduct. Each firm will also have its own code of ethics, which would serve to complement the profession's code. Thus, adherence to these codes should ensure objectivity, integrity, audit quality and acting in the public's interest.

The term "audit team" relates to a group of auditors who may be working on particular audit assignments (Solomon, 1987; Rich, Solomon and Trotman, 1997;

Dowling, 2009). Dowling (2009) defines the audit team as "the social clan of auditors an auditor works with across several audit engagements" (p. 778). Given that auditors work as a group or team on many engagements, Dowling (2009) further argues that the individual auditor's identification with a team may go beyond any specific audit engagement. Each audit team will consist of individuals possessing different characteristics, experiences, knowledge and incentives.

Antle, Griffin, Teece and Williamson (1997) suggested that the incentives for the team to behave ethically can be based on environmental factors, the audit firm's governance structure and individual factors. Environmental factors can range from competition, the provision of non-audit services and codes of professional conduct. The audit firm's governance structure can involve its compensation policies, internal control practices and the relationships that the firm have with its members. Individual factors can include the auditor's personal financial situation, sense of professionalism and personal relationships (Antle et al., 1997). Thus, the impact of teams on ethical decision-making can provide rich areas for future research.

2.7 Theories and perspectives of auditor independence

There have been several theoretical models of auditor independence. The theoretical assumption of auditor independence is that a separation exists between ownership and control which is synonymous with agency theory. Agency theory has its origins from the 17th century, where the concept referred to servant-master relationship in that agents (servants) focused more on self-interest rather than the interest of the principal (master) (Reinstein, Landers and Jennings, 2002). For example, Jensen and Meckling (1976) explained agency theory as a relationship, in which principals (shareholders) engage another person (i.e. the auditor) to perform a service for the principals to ensure that

their agents (management) are running the business properly (Reinstein et al., 2002). To control management (agents) from benefiting at the expense of the principals (shareholders), a need for independent audits is created to act on behalf of the organization's shareholders (Reinstein et al., 2002; DeAngelo, 1981a, 1981b).

At the annual general meeting of the shareholders, the directors' recommendations for auditors are usually approved. Auditors (as agents) normally determine the terms of reference for each audit engagement and forward the audit report to the board of directors (acting as principal). The agent-principal relationship has now been changed to encompass the audit committee as an agent. Thus, Reinstein et al. (2002) argued that the principal will be the shareholders, while the agents will be the Board of Directors, the audit committee and the auditors. These authors further suggested that auditors, acting as rational economic individuals, will maximize self-interest via increasing audit and non-audit fees to cover cost of lost reputation and legal costs.

DeAngelo's (1981b) economic model proposed that auditors earn 'quasi-rents' from the clients which may provide the auditor with incentives to do whatever is necessary to keep the client and these incentives are contingent on the importance and risk level of the client and the probability of being discovered. Furthermore, Antle's (1984) economic model analyses situations which have three parties (owner, manager and auditor). The model assumes that if the auditor and management seek to maximize their own self-interest, they could conspire for their own benefit at the expense of the owner. Antle's model assumes utility maximization, and suggests that management may fraudulently report the company's financial status, and the auditor has the responsibility to report it, but may not make the effort to do so (Moizer, 1997).

In another attempt to explain auditor independence, Johnstone, Sutton and Warfield (2001) conceptually advanced an auditor independence framework. The authors argued that risk of independence is related to environmental factors, originating from direct and indirect incentives. They proposed that direct incentives consist of investments in the client, contingency fees, seeking future employment with an existing client, and financial dependence on any client (lowballing and reputational value). Indirect incentives may include close personal relationships and the audit of one's own work. The authors further proposed that mitigating factors include corporate governance structures, regulatory environment, audit firm's culture, and characteristics of the auditor. Fearnley et al. (2005), using a case study approach, identified the following threats to auditor independence: urgency, familiarity, self-review, intimidation and fear of losing a client. It was also found that management motivation was a key driver of pressure.

2.8 Factors affecting auditor independence

There is extensive previous research on auditor independence, which highlights the factors that are perceived to influence perceptions of the independence of auditors (e.g. Lindsay, 1992; Beattie et al., 1999; Hudaib, 2003; Geiger and Rama, 2003). This body of research identified the factors that either impaired or enhanced auditor independence in appearance among users and auditors.

Beattie et al. (1999) found that the threats to auditor independence were economic dependence on the client, competition among auditors, provision of non-audit services (NAS) and laxity of regulation. These authors also found that factors that were likely to improve auditor independence included regulatory changes, need for audit committees, the likelihood of being referred to the Financial Review Committee and

the possible loss of Registered Auditor Status. Prior research has also shown that other factors that could affect or impair perceptions of audit independence include length of tenure and unpaid fees (Teoh and Lim, 1996), firm size (Beattie et al., 1999), the financial position of the client (Knapp, 1985) and financial investment in the client (Lindsay, Rennie, Murphy and Silvester, 1987).

The provision of NAS by audit firms has been debated in the audit literature. Some authors have argued that NAS creates an economic or financial relationship between the client and the auditor, and may create dependence, causing the auditor not to report truthfully (Simunic, 1984). Other empirical studies have also found that provision of NAS creates a perceived lack of auditor independence (Pany and Reckers, 1984; Beattie et al., 1999; Alleyne, Devonish and Alleyne, 2006).

Alleyne (2002) highlighted that the closeness of the audit market in small countries may place auditors in difficult and potentially conflicting positions, since competition may force them to do whatever is possible to keep clients. The finding indicates that there may be a link between the size of audit market, competition and auditor independence, where smaller audit markets are more likely to experience higher levels of competition. This high level of competition, in turn, may impair auditor independence. Alleyne's (2002) finding was also confirmed by Alleyne et al. (2006), who found that size and closeness of Barbadian society (i.e. small) was perceived by users and auditors as being likely to compromise auditor independence.

The large size of audit fees has also been perceived as being likely to compromise auditor independence. Prior research has shown that auditor independence may be impaired by users' perceptions of high fee dependency on any client (Dykxhoorn and Sinning, 1981; Teoh and Lim, 1996; Beattie et al., 1999). Studies have also found support for a positive relationship between perceptions of auditor

independence and firm size (McKinley, Pany and Reckers, 1985; Gul, 1991). These studies have found that larger audit firms were more likely to be independent. It is assumed that large audit firms will be more likely to resist client pressure. However, this assumption may be refuted by the case of Arthur Andersen, being pressured by Enron.

Auditor independence is also believed to be threatened by the auditors' reliance on directors for their appointments (Miller, 1986). For example, Mitchell (1990) argued that auditor independence may be compromised, since auditors are appointed by the Board. As a result, auditors are more inclined to yield to management's request to grant a favourable audit opinion, due to the fear of losing the audit client (Goldman and Barlev, 1974; Nichols and Price, 1976; Dunn, 1996).

Other threats to independence may be close familial relationships and audit staff having shares in the client (ICAEW, 2009). Prior research suggested that the presence of such relationships constitutes major threats to auditor independence (Gorman and Ansong, 1998; Agacer and Doupnik, 1991; Hudaib, 2003). Hudaib (2003) also looked at the personal level, and found that skills, competence and blood relationships were perceived as threats to auditor independence. The codes of professional conduct prohibit the auditor from holding shares in private or public companies audited by them.

Lengthy tenure of the auditor in office has been argued to influence the risk of the auditor losing independence due to the development of allegiances and personal relationships (Flint, 1988; Hudaib, 2003). As a result, the auditor's objectivity may become impaired as there may be a tendency to overlook issues and accept flippant responses to queries (Porter, Simon and Hatherly, 1996). Firth (1981) found that bankers perceived that lengthy tenure may impair auditor independence.

Teoh and Lim (1996) found a negative relationship between tenure of the auditor and auditor independence. The authors suggested that auditors should be mandatorily rotated as a means of maintaining auditor independence. In Australia, Schelluch and Thorpe (1995) found that rotation of audit partners and staff was viewed as being critical to the enhancement of auditor independence. In addition, several regulatory factors that are likely to enhance independence include the presence of audit committees (Cadbury Report, 1992; Sarbanes and Oxley, 2002), adequate policies for hiring and paying auditors, strict adherence to standards and effective disciplinary procedures for auditors and clients (APB, 1994; Alleyne et al., 2006). The next section looks at the auditors' ethical decision-making process.

2.9 Auditors' ethical decision-making process

External auditors are required to make independent judgments about financial statements from an ethical perspective. The accounting professional bodies (e.g. ICAEW, AICPA and IFAC) have set guidelines via codes of ethics to motivate the membership to behave ethically. However, given the complexities of human nature, prior research suggests that the decision to act ethically may be more difficult to do than simply following the codes of the profession or the organizations (Lampe and Finn, 1992; Falk et al., 1999).

The auditors' ethical reasoning takes into consideration such factors as objectivity, independence, integrity, due care and professional skepticism (Thorne, 1998; Jones and Ponemon, 1993). This ethical reasoning process represents the ability of the auditor to make an unbiased opinion (via the audit report) on the accounts of the client and to appreciate the impact of that opinion on other users (Ponemon and Gabhart, 1994; Jones, 1991). There are situations when the auditor's expertise and rules

of professional conduct are not sufficiently clear for the auditor to render a judgment on a particular issue. Thus, one may argue that it is the ethical reasoning of the auditor, which determines the quality of the audit opinion.

2.9.1 Previous ethical decision-making models

Many of the studies on ethical decision-making have researched factors that are likely to influence auditors' ethical reasoning process. These studies used Kohlberg's (1969) cognitive moral development model as the basis for developing their ethical decision-making models. Kohlberg's theory postulated three broad progressive stages of moral (ethical) development: 1) pre-conventional, 2) conventional, and 3) post-conventional. At the first stage (the pre-conventional level), an individual's ethical reasoning process concerns issues surrounding what is right and wrong based on the consequences of the act. At stage two (the conventional level), the individual's decision as to what is right or wrong is determined by rules and laws and the expectations of peers and significant others (Jones et al. 2003). Finally, at the post-conventional level, the individual's ethical decisions are based on using general ethical principles such as acting for society's welfare and justice (Kohlberg, 1969; Rest, Narvaez, Thoma and Bebeau, 1999). While Kohlberg's approach used a qualitative methodology, Rest (1979) developed a quantitative instrument, referred to as the Defining Issues Test (DIT), to measure moral development.

Many ethical studies have used Rest's (1979, 1986) ethical decision-making model (also known as the Four Component Model) (See Figure 2). This model is made up of four components: (1) moral recognition, (2) making ethical judgment, (3) intentions to act ethically, and (4) ethical action or ethical behaviour. The first component is the recognition of ethical issues (ethical sensitivity), which suggests that

ethical decision-making ought to start with the awareness that there is an ethical situation or dilemma, and the identification of alternative strategies and potential consequences of those actions on others. For example, the individual audit staff may choose to agree or not to agree with management (client) or another audit firm member (e.g. manager or partner) on a questionable inventory or accounts receivable practice, and considers the potential harm or benefit to other users of the financial statements.

In the second stage, after the individual identifies the dilemma, he or she will make an evaluation of the possible outcomes and make an ethical or moral judgment as to what he or she ought to do. For example, an overstatement of inventory or accounts receivable, or understatement of liabilities may be identified as being ethical or unethical, depending on whether the audit staff accepts or rejects either the client's, the audit manager's or partner's position. The third stage, the individual's ethical intentions, focuses on the evaluation of the right decision when compared to other options. This component deals with the individual's behavioural intentions (i.e. the auditor's decision of what to do). The final component of the model refers to the actual performance of the behaviour.

Figure 2: Rest's (1986) ethical decision-making model (adapted)

Recognize moral issues	→	Make moral judgement	→	Establish moral intentions	→	Engage in moral behaviour
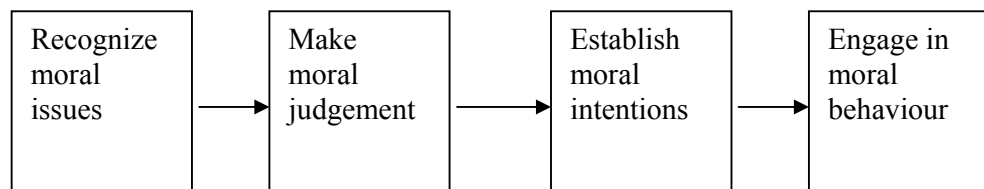
Some interactionist models have incorporated individual and contextual factors to determine the variables that are likely to influence one's ethical decision-making. Jones et al. (2003) highlighted that these interactionist models have proposed that

ethical decision-making is influenced by individual factors such as gender (Gilligan, 1982), ethical development (Thorne, 1998), attitudes (Ferrell and Gresham, 1985), character (Thorne, 1998) and experience (Hiltebeitel and Jones, 1992; Bebeau, 1994). These models have also proposed contextual factors such as workplace characteristics (budget pressures, rewards, penalties and social influence) (Trevino and Weaver, 2003), organizational commitment (Trevino, 1986) and moral intensity (Jones, 1991).

Several studies have built on cognitive-developmental psychology to explain auditors' ethical reasoning. For example, Trevino (1986) highlighted that the ethical decision-making may be influenced by several contextual and individual-based factors such as organizational culture, the characteristics of work, locus of control and the degree of reliance on others for guidance (See Figure 3). Trevino (1986) cited the arguments of Higgins, Power and Kohlberg (1984) and claimed that a sound explanation of ethical decision-making in organization must address both individual and situational variables.

Several authors have already capitalised on this opportunity to advance such an integrated model. For example, Ferrell and Gresham (1985) integrated contextual and individual factors in a contingency-based model of ethical decision-making. They argued that several contingent variables are likely to influence the decision-maker such as individual factors (values and attitudes), and contextual or organizational factors (significant others, professional codes and corporate policy). Similarly, Bommer, Gratto, Gravander and Tuttle (1987) proposed a broad model of ethical decision-making comprising the work setting (organizational culture and policies), personal environment (e.g. referent groups), professional environment (e.g. codes of conduct), regulatory environment (e.g., legislation), societal values and individual factors (e.g. demographics and moral reasoning).

Figure 3: Trevino's (1986) person-situation interactionist model

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                          ┌─────────────────────────┐
                          │  Individual moderators  │
                          │      Ego strength       │
                          │    Field dependence     │
                          │     Locus of control    │
                          └────────────┬────────────┘
                                       │
                                       │
┌──────────┐     ┌──────────────────┐ │           ┌──────────────────┐
│ Ethical  │────▶│   Cognitions     │ │           │ Ethical/unethical│
│ dilemma  │     │                  │─┼──────────▶│    behaviour     │
│          │     │    Stage of      │ │           │                  │
└──────────┘     │ cognitive moral  │ │           └──────────────────┘
                 │  development     │ │
                 └──────────────────┘ ▲
                           ▲          │
                           │          │
                 ┌─────────┴──────────┴──────────┐
                 │     Situational Moderators     │
                 │                                │
                 │    IMMEDIATE JOB CONTEXT        │
                 │                                │
                 │        Reinforcement           │
                 │        Other pressures         │
                 │                                │
                 │    ORGANIZATIONAL CULTURE       │
                 │                                │
                 │      Normative structure       │
                 │        Referent others         │
                 │      Obedience to authority    │
                 │   Responsibility for consequences │
                 │                                │
                 │   CHARACTERISTICS OF THE WORK   │
                 │                                │
                 │         Role taking            │
                 │   Resolution of moral conflict │
                 └────────────────────────────────┘
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Jones (1991) claimed that, despite researchers' attempts to develop models that capture various forms of factors (both organizational and individual), they failed to acknowledge the relevance of issue-specific variables in their conceptualisation. As a result, Jones (1991) proposed the moral intensity construct, which is based on the view that ethical behaviour is contingent on the moral issue itself. Jones (1991) highlighted

the significance of the moral issue (in a particular situation) in the development of future of ethical decision-making models. Moral intensity comprises magnitude of consequences, social consensus, probability of harm, concentration of effect, proximity and temporal immediacy (See Figure 4). The greater the moral intensity of the issue, the less likely a person will engage in unethical behaviour. Jones (1991) argued that high moral intense issues are more significant and vivid than low intensity ones, and the more intense (or severe) the issue becomes, the higher the level of awareness from the individual that may reduce the intention to behave unethically.

Magnitude of consequences may be defined as the amount of potential harm an act can cause to people. It is proposed that the greater the magnitude of consequences (harm to more persons), the greater will be the moral intensity of the issue. Support was found for a positive relationship between magnitude of consequences and ethical decision-making (Fritzsche, 1988; Hunt and Vasquez-Parraga, 1993). Social consensus refers to the level of agreement from significant others (family, peers, friends and co-workers) on whether an intended act may be evil or good (Singhapakdi, Vitell and Kraft, 1996). Probability of effect refers to situations where, as the likelihood of a potential harm (benefit) increases, the level of moral intensity increases (decreases). Temporal immediacy refers to instances where an act which has immediate negative consequences is deemed to have higher moral intensity than one which may have possible negative consequences in the future. Proximity implies the closeness of the decision-maker to the beneficiaries or victims of the moral act. Jones (1991) argued that people tend to be more caring about individuals who are close to them (i.e. becoming more morally intense) than those who are distant. Concentration of effect refers to the inverse relationship between the number of persons that are likely to be affected by a given act and its related magnitude (Jones, 1991, p. 371).

Figure 4: **Jones' (1991) issue-contingent model**
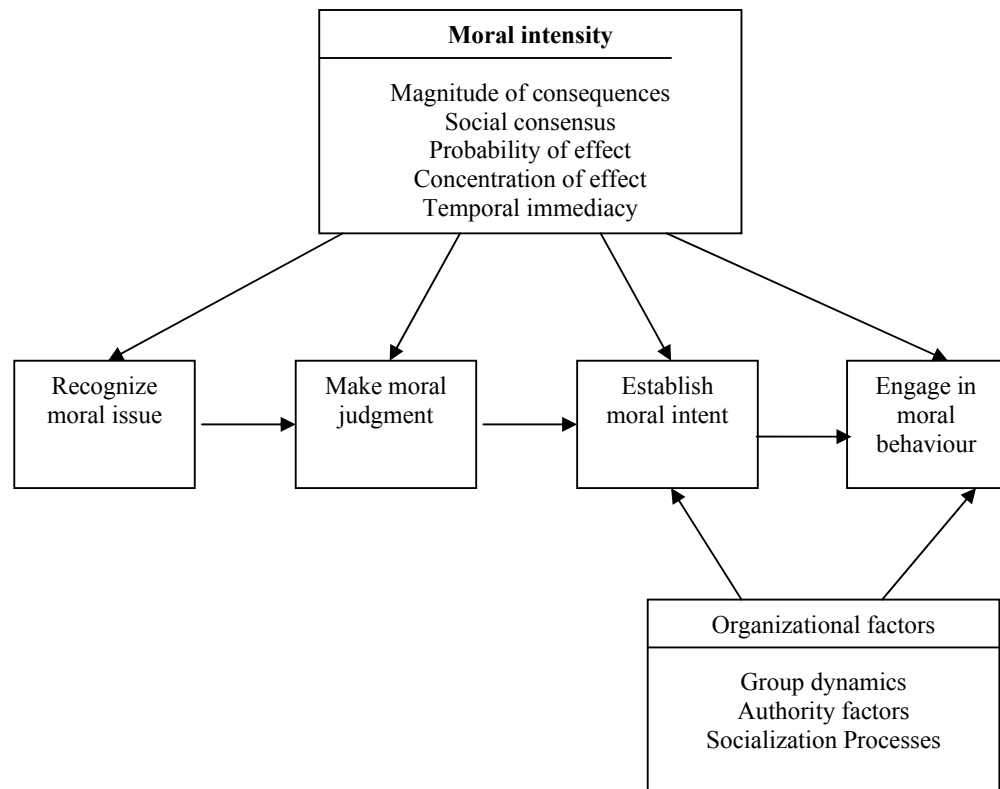
Given the above, it is deemed necessary to construct a model that contains diverse factors derived from relevant literature and which depict the multi-dimensional and complex reality of ethical decisions in organizations and society. Flannery and May's (2000) concluded that "by enfolding the influences of the individual, context, and issue into organizational ethics…researchers may begin to understand the decision-making processes" (p. 659).

2.10 Prior research on ethical decision-making

In a review of the literature on accounting ethics, Jones et al. (2003) found that most of the research focused on the four phases of ethical decision-making stages of Rest's

(1986) model: 1) recognition of moral issue (ethical sensitivity); 2) ethical (moral) judgment; 3) ethical intention; and 4) engage in ethical behaviour. The following sections briefly review the literature in that context. This review is not intended to be exhaustive, but serves to highlight important studies of ethical decision-making and sets up the discussion for whistle-blowing in Chapter 3.

2.10.1 Studies on auditors' ethical sensitivity (recognition of ethical issues)

Ponemon (1993) argued that ethical sensitivity is important in situations where the rules of the firm or the profession are not clear. In an audit context, auditors must be able to judge the integrity of clients (Shaub and Lawrence, 1996). Ponemon and Gabhart (1993) found that auditors who had higher ethical development were more sensitive to issues of competence and integrity of the client than auditors who had lower moral reasoning, when assessing the materiality of a proposed adjustment. Ponemon (1993) had similar findings among audit managers. Cohen, Pant and Sharp (1996, 2001) found that auditors were more inclined to make ethical judgements, based on utilitarian, justice and obligatory grounds.

Studies have used Jones' (1991) issue-contingent model to examine the relationship between moral intensity and auditors' ethical sensitivity. For example, Karcher (1996) found that respondents were more inclined to be ethically sensitive, if the magnitude of consequences was great. Ketchand, Morris and Shafer (1999), by varying the potential misstatement (magnitude of consequences or materiality) and the proposed use of the financial statements, found that in high moral intensity situations, auditors perceived actions as being more highly unethical than in low moral intensity situations. These results suggest that magnitude of consequences is positively related to auditors' ethical sensitivity (Jones et al., 2003; Cohen and Martinov-Bennie, 2006).

Ketchand et al. (1999) argued that an important issue facing the profession is the fact that auditors face significant client pressures to use questionable accounting practices.

Research has tested for the influence of the auditors' professional environment on their ethical awareness (Dreike and Moeckel, 1995; Douglas, Davidson and Schwartz, 2001; Jones et al., 2003). There has been mixed findings on the influence of the code of ethics and organizational culture on the ethical sensitivity of auditors. While some research has shown that the codes should reduce uncertainty, others have argued that professional codes could restrict the ethical sensitivity for issues not adequately considered in the codes (Douglas et al., 2001; Jones et al., 2003).

2.10.2 Studies on auditors' ethical judgments

Rest's (1979, 1994) second component, making an ethical judgment, has been researched fully within the auditing context (Ponemon, 1990). At this stage, the auditor identifies the ethical issue and decides on the appropriate strategy needed to resolve it (Jones et al., 2003). Many studies have used Rest's (1979) DIT instrument to measure ethical judgment. Most studies using the DIT have found that female auditors scored higher on the ethical reasoning scales than their male counterparts (Ponemon and Gabhart, 1993; Eynon, Hill and Stevens, 1997; Thorne and Magnan, 2000). Most of these studies have used audit-specific instruments and scenarios as proxies to measure the ethical judgment of auditors (Thorne, 2000; Massey, 2002; Jones et al., 2003). Several studies have indicated that the influence of peers on the resolution of ethical dilemmas is likely to improve the ethical judgment of auditors (Brugman and Weisfelt, 2000; Thorne and Hartwick, 2001).

Ponemon (1992b) found that auditors who possessed high moral development tended to under-report audit time more than those audit staff with relatively lower

levels of ethical development. In a later study, Ponemon (1993) found that auditors with higher ethical reasoning scores had negative perceptions of under-reporting, slacking and premature signoffs than auditors with low ethical reasoning. Sweeney and Roberts (1997), using 119 audit partners and managers, found that auditors' ability to make independent judgments were significantly influenced by the presence of a penalty and level of moral development.

Coram et al. (2008) examined moral intensity of reduced audit quality acts among auditors in Australia. These authors used only three of Jones' (1991) perceived moral intensity constructs (probability of effect, social consensus and magnitude of consequences). Coram et al (2008) found empirical support for the moral intensity construct in the audit context. Specifically, they found that false signing off was deemed more morally intense as an issue of reduced audit quality.

2.10.3 Studies on auditors' behavioural intentions

The literature highlights a significant and strong relationship between ethical intentions and ethical behaviour (Ajzen and Fishbein, 1980; Ajzen, 1991). Prior research has also tested for the influence of individual (e.g. attitudes, perceived behavioural control, subjective norms, ethical development) and contextual (e.g. moral intensity, organizational culture, group or peer pressure) factors on auditors' ethical intentions (Shafer, 2008; Karacaer, Gohar, Aygun and Sayin, 2009; Sweeney, Arnold and Pierce, 2010). For example, prior research has found strong support for the significant and positive relationship between moral (ethical) development and auditors' behavioural intentions on issues such as resisting client and other work related pressures (e.g. Windsor and Ashkanasy, 1995; Sweeney and Roberts, 1997; Gul, Ng and Tong, 2003; Tsui and Gul, 1996; Jones et al., 2003; Sweeney et al., 2010).

Using locus of control, Tsui and Gul (1996) found that internals (i.e. auditors who feel that they have control over their own lives) were more likely to give in to client requests, compared to externals (i.e. those auditors who feel that others control their lives). Buchan (2005) investigated the ethical behaviour of auditors, using Ajzen's (1991) theory of planned behaviour.[2] He sought to determine the level of influence of attitudes, subjective norms, perceived behavioural control, moral sensitivity and the firm's ethical climate on auditors' ethical intentions. Support was only found for the significant and positive relationship between attitudes and intentions to act ethically.

Lord and DeZoort (2001) found that peer pressure (i.e. obedience pressure from superiors or conformity pressure) significantly influences auditors' ethical intentions. These authors found that audit seniors were more likely to act unethically (i.e. sign off on materially misstated client balances), due to obedience pressure. Prior research has also used Jones' (1991) moral intensity model as a contextual variable to determine a link with auditors' ethical intentions. Shafer, Morris and Ketchand (2001) found that in situations of high moral intensity (using magnitude of consequences and probability of harm), auditors were less likely to give in to client pressure to support aggressive accounting treatments.

Cohen and Martinov-Bennie (2006) also found support for the importance of all moral intensity factors in the making of ethical decisions within the audit profession. These authors found that magnitude of consequences was the most important moral intensity factor, which they argued was not surprising given that risk and materiality influence the choice of audit procedures. Cohen and Martinov-Bennie (2006) suggested research should be conducted on the role of perceived moral intensity factors on auditor independence issues (e.g. client tenure, external competition and client pressure).

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[2] The theory of planned behaviour will be fully explained in chapter 4.

Previous studies have used the DIT to look at ethical decision-making among groups (e.g., Nichols and Day, 1982; Abdolmohammadi, Gabhart and Reeves, 1997; Abdolmohammadi and Reeves, 2003). Nichols and Day (1982) found that groups reached decisions, reflecting higher DIT (ethical reasoning) scores than the average ethical reasoning level of the individual members. Using the DIT, Abdolmohammadi et al. (1997) found that the most capable and dominant members of the group significantly influenced the decisions of interacting groups. This led Abdolmohammadi and Reeves (2003) to conclude that superior decision-making was made by groups when compared to individuals. Given that the literature shows that there is a relationship between peer pressure and auditor's ethical intentions (e.g. Lord and DeZoort, 2001), Jones et al. (2003) suggested the need for future research on the influence of groups or teams on auditors' ethical intentions.

2.10.4 Studies on auditors' ethical action or behaviour

A review of the audit literature revealed that there were not many studies that looked at the ethical action or behaviour component (i.e. the final phase of the ethical decision-making process) (Jones et al., 2003). For instance, Falk, Lynne, Mestelman and Shehata (1999), using an experimental approach, found that when auditors were faced with the prospect of losing a client, they were more likely to compromise their independent judgment. Ponemon (1992b) found that auditors, with low moral development, appeared to be more willing to under-report time. Thus, these studies show that contextual factors (e.g. budget or client pressure) may influence auditors' ethical actions (Jones et al., 2003).

Researchers have argued that there are inherent difficulties in measuring and observing actual auditors' ethical behaviour, a point that will be elaborated upon in

Chapter 3. Research investigating factors associated with auditors' whistle-blowing behaviours remains to be considered. Thus, most of the work in the area has focused primarily on measuring behavioural intentions (i.e. ethical intentions) rather than actual ethical behaviour. A table has been adapted from Jones et al. (2003) and updated to reflect the key aspects of the current literature on ethical intentions within the accounting and auditing profession. Thus, Table 1 shows a summary of studies that have researched ethical intentions among auditors, since intention is the dependent variable and main focal point of this thesis.

Table 1: Summary of studies investigating auditors' ethical intentions

Authors	Respondents	Factors	Methodology	Main findings
Ponemon & Gabhart (1990)	119 audit practitioners	Moral development (DIT), probability of detection and harm to others.	Scenario approach with an independence dilemma (asking whether the auditor should be involved in the client's search and recruitment process).	Auditors with high levels of moral development were less likely to compromise independence judgements, compared to those with low levels of moral reasoning.
Ponemon & Gabhart (1993)	235 auditors.	Examined moral development, staff performance appraisal, penalties, and pressure to conform.	Scenario approach covering audit budget pressure situations (underreporting time and premature sign off).	Auditors with low levels of moral development tended to be willing to underreport time and prematurely sign off, when they may be penalised for poor performance.
Windsor & Ashkanasy (1995)	168 auditors in Australia.	Examined moral development, character (belief in a just world), and bargaining power of the client.	Scenario study, using an independence dilemma highlighting client bargaining power (financial condition, size of fees, and threat of changing the auditors).	Auditors, with high moral development and high beliefs in a just world, were more likely to withstand client bargaining power.
Ketchand, Morris & Shafer (1999)	508 accountants.	Moral intensity (materiality and proposed use of financial statements).	Scenarios – Testing ethical dilemmas for magnitude of consequences, probability of effect, social consensus and temporal immediacy.	Behavioural intentions is influenced by materiality and proposed use of financial statements.

Authors	Respondents	Factors	Methodology	Main findings
Shafer, Morris & Ketchand (2001)	323 auditors.	Moral intensity, using magnitude of consequences (materiality) and probability of harm (intended use of financial statements).	Scenario study involving independence dilemma with auditors acceding to client request.	Magnitude of consequences and probability of harm significantly influence auditors' intentions.
Lord & DeZoort (2001)	171 auditors.	Measured moral development, obedience pressure, pressure to conform, organizational and professional commitment.	Using scenarios (independence dilemma). Testing the likelihood of audit seniors signing off on a client's account balance that is materially misstated.	A positive relationship exists between obedience pressure and auditors' intentions to sign off on the incorrect account balance. Moral development was not significantly related to intentions.
Shafer, Morris & Ketchand (2001)	323 auditors.	Moral intensity, using magnitude of consequences (materiality) and probability of harm (intended use of financial statements).	Scenario study involving independence dilemma with auditors acceding to client request.	Magnitude of consequences and probability of harm significantly influence auditors' intentions.
Buchan (2005)	95 auditors.	Examined the influence of attitudes, subjective norms, perceived behavioural control, moral sensitivity and ethical climate, on ethical intentions	A survey questionnaire, with scenarios.	Attitudes were significantly related to ethical intentions. Subjective norms, perceived behavioural control, moral sensitivity and firm's ethical climate were not supported.

Authors	Respondents	Factors	Methodology	Main findings
Cohen and Martinov-Bennie (2006)	37 Australian auditors.	Examined Jones (1991) moral intensity construct and its influence on Rest's (1986) four-stage ethical decision-making framework.	Survey.	Moral intensity influenced auditors' ethical intentions.
Shafer (2008)	128 Chinese auditors.	Measured ethical judgement, ethical climate, ethics position (orientation) and behavioural intention.	A survey questionnaire, with vignettes.	Ethical climate was significantly related to ethical intentions. Local auditors reported higher intentions to commit unethical acts compared to auditors from international firms.
Karacaer, Gohar, Aygun & Sayin (2009)	125 Pakistani and 196 Turkish CPAs	Examined personal values (Rokeach values survey), perceived moral intensity, ethical judgement and behavioural intentions.	Survey questionnaire.	Ethical judgement and behavioural (ethical) intentions were influenced by moral intensity. Personal values were significantly related to moral intensity and ethical intentions.
Sweeney, Arnold & Pierce (2010)	555 auditors	Measured ethical culture, demographics and auditors' ethical evaluation and intentions.	Survey questionnaire.	Perceived unethical pressure was positively and significantly related to intentions to engage in dysfunctional behaviours.

Adapted from Jones et al. (2003, pp. 80-85)

2.11 Conclusion

This chapter reviewed prior studies on auditor independence and ethical reasoning among auditors. The purpose of the review is to provide a discussion on key concepts that relates to the audit profession, and sets the stage for the review of whistle-blowing in an audit context in Chapter 3. Auditor independence legitimises the work of auditors (Sikka and Willmott, 1995). It involves the auditor adopting an unbiased perspective during the engagement (Arens, Loebbecke, Lemon and Splettstoesser, 2002) and is regarded as a moral issue (Preston et al., 1995). Auditor independence figures prominently in auditing, including the use of formal codes of ethics.

It is evident that research has also focused heavily on the effect of the provision of NAS impairing auditor independence. This issue has had mixed reviews. However, it has become even more critical, given that Enron's collapse has been partially blamed on Arthur Andersen's provision of NAS. In addition, the undue dependence on any one client may put pressure on the auditor to agree with the client. It is assumed that high independence should lead to high probability of whistle-blowing. The greater the independence of an auditor, the more likely the auditor would report questionable acts within or outside of the firm. Independence is synonymous with the individual's ability to be free of bias, withstand pressure and report honestly. This chapter also showed that substantial research has been conducted on the ethical decision-making process of auditors. It was also seen that auditors' ethical intentions were influenced by individual and contextual factors which are the focal points of this thesis. This thesis now proceeds to look at whistle-blowing in an audit context.

CHAPTER 3: LITERATURE REVIEW - WHISTLE-BLOWING AND ITS RELEVANCE TO AUDITING

3.0 Introduction

In the previous chapter, auditor independence and ethics were discussed to provide an understanding of the key concepts of auditing which are relevant to the current study. The objective of this chapter is to review the research on whistle-blowing intentions and its relevance to auditing. It addresses the concept and reviews the literature of previous studies on the audit profession. Prior research suggests that individual and situational factors are influential in the likelihood of reporting of wrongdoing or questionable acts (Arnold and Ponemon, 1991; Hooks et al., 1994; Finn, 1995; Near and Miceli, 1995). However, more research is needed to facilitate the understanding of the factors that are more likely to increase and promote effective whistle-blowing, especially within an auditing context (Chung, Monroe and Thorne, 2004).

This chapter is organised as follows: The first section examines the concept of whistle-blowing, and is followed by a section that explains whistle-blowing in the context of auditing. The third section reviews the whistle-blowing case of Enron and is followed by a section which reviews previous whistle-blowing models. The fifth, sixth and seventh sections look at definitions of wrongdoing, differences between internal and external reporting and whistle-blowing legislation, respectively. The eighth section reviews the literature on the personal and situational factors as well as the characteristics of the wrongdoing that are likely to influence whistle-blowing, and the consequences of whistle-blowing. The final section concludes the chapter.

3.1 The concept of whistle-blowing

There has been debate in the literature on what constitutes whistle-blowing (e.g. Near and Miceli, 1985; Jubb, 1999; King, 1997). Near and Miceli (1985) defined whistle-

blowing as "the disclosure by organization members (former or current) of illegal, immoral or illegitimate practices under the control of their employers, to persons or organizations that may be able to effect action" (p. 4). Due to the controversial nature of whistle-blowing, many differing perspectives have been put forward, but yet there are commonalities that directly correspond with those of Near and Miceli (1985). Jubb (2000) stated that the importance of morals is a major component for some researchers (such as De George, as cited in Elliston, Keenan, Lockhart and Van Schaick, 1985; De Maria, 1994), who have argued that the act of reporting cannot be termed as whistle-blowing, if the element of morality is omitted. However, he further noted that the presence of a good motive would not suffice to be constituted as whistle-blowing, although there is recognition that justification for the act should include it.

A more recent and very different definition is offered by Jubb (1999), who stated that:

> Whistle-blowing is a deliberate non-obligatory act of disclosure, which gets onto public record and is made by a person who has or had privileged access to data or information of an organization, about non-trivial illegality or other wrongdoing whether actual, suspected or anticipated which implicates and is under the control of that organization, to an external entity having potential to rectify the wrongdoing. (p. 78)

Jubb's (1999, p. 78; 2000, p. 158) definition highlights six elements: 1) act of disclosure (deliberate and non-obligatory), 2) the whistle-blower who is privy to the organization's important data, 3) disclosure subject – organizational wrongdoing or illegalities (actual, potential or suspect), 4) target organization, 5) disclosure recipient – an external entity that has the potential to rectify the wrongdoing, and 6) outcome – on public record. Jubb (2000) specifically argued that internal reporting by an external auditor should not be considered as whistle-blowing on the grounds that:

All auditors have opportunity and occasion to make disclosures but they can only be candidates for inclusion in the ranks of whistle-blowers, if the disclosures are made externally and go beyond the scope of their official role in the organization. (p. 154)

Jubb (2000) further argued that where the external auditor makes an internal disclosure, it is role-prescribed, since it is acting in the public's interest and is a duty owed to the organization, and goes beyond the violation of confidentiality. He also argued that any act of disclosure that is authorized and obligatory, does not represent dissent, and should not be considered as whistle-blowing. As a result, he further deemed that whistle-blowing by the external auditor is the act, where it is on public record (i.e. to an external entity).

Thus, it can be seen that Near and Miceli's (1985) definition includes internal and external reporting. Jubb's (1999) definition considers only external reporting as whistle-blowing on the grounds that internal disclosures do not violate the organization's confidences. However, this contrasts with Near and Miceli (1985) and King (1999, p. 316), who argued that both internal and external reporting are conceptually similar in the whistle-blowing process. An overwhelming body of research has supported the latter view (e.g. King, 1997; Dworkin and Baucus, 1998; Park and Blenkinsopp, 2009).

The relevance of internal reporting to organizations was corroborated by Brennan and Kelly (2007) and Kaplan and Schultz (2007). Chung et al. (2004) believe that internal reporting is critical to the audit process, since the auditor can use internal sources such as top level management in the audit firm to correct any wrongdoing. However, they can also use external sources such as media and other regulatory bodies to effect action. Thus, employees in an organization have these options when faced with an unethical or unsatisfactory situation.

Near and Miceli (1985) argue that internal and external reporting may be viewed as whistle-blowing since both channels may represent the observer's challenge to the organization's authority structure in an attempt to effect change. Thus, this researcher supports Near and Miceli's (1985) view on whistle-blowing.[3] However, Brennan and Kelly (2007) argued that Near and Miceli's (1985) definition does not stress the seriousness of the wrongdoing. Miceli and Near (1988, p. 268) suggested that no comprehensive theory existed that explained why staff would whistle-blow on unethical or illegal behaviour in organizations. While most organization members may view whistle-blowing as morally right, a far smaller proportion may actually blow the whistle when confronted with an unethical act. An audit staff member may report internally any discovered wrongdoing, but if it is not adequately addressed through the normal procedures, the staff member can blow the whistle by reviewing the issue at a higher level, be it in the audit firm (e.g. managing partner, another partner, ethics officer, anonymous channel - telephone hotline) or the client (to designated authorities concerned with the auditor-client relationship such as the board of directors or audit committee) or externally to the media, professional or regulatory bodies (Finn, 1995; Chung et al., 2004).

Dworkin and Baucus (1998) found that whistle-blowers who went externally are more likely to face organizational retaliation than those who went internally, because of the potential damage to the organization and its employees. Thus, internal reporting channels are preferred and should be exhausted before using external channels, since it allows the firm to internally correct the wrongdoing, before "airing it's dirty linen" in public (Near and Miceli, 1995). Given that such information for the audit profession is

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[3] Within the auditing context, reporting internally means within the audit-client relationship, i.e. either to the accounting firm's hierarchy or to the client's relevant party such as a member of the audit committee. Reporting externally is to any party outside of the auditor-client relationship.

not publicly available, the scale of this form of whistle-blowing is relatively unknown. The Sarbanes Oxley Act of 2002 in the USA, the Public Interest Disclosure Act (PIDA) 1998 in the UK, as well as the accounting codes of professional conduct strongly support internal reporting as the first step in the process. Miceli, Near and Schwenk (1991) and Hooks et al. (1994) argued that whistle-blowing can be an important internal control mechanism in organizations, benefiting organizational members and other stakeholders in society from the disclosures by potential whistle-blowers. In a wider accounting context, Cynthia Cooper of WorldCom chose internal reporting of accounting fraud to the audit committee as the "right" channel, while Sherron Watkins opted to report the accounting irregularities at Enron to an internal channel, via an email to Chairman Kenneth Lay.

Miceli and Near (1992a) further described whistle-blowing or reporting of wrongdoing as an act that is elective and not duty bound. Near and Miceli (1996) contend that it is an "attempt to terminate the current wrongdoing or prevent future wrongdoing of a similar type" (p. 510) and draw a sharp distinction between the acts of whistle-blowing and informing.

In an attempt to eliminate unethical behaviour, Miceli and Near (1994) postulated that the status and power of the whistle-blower were instrumental in facilitating the process of reporting any wrongdoing. For example, they believed that the employee may be in a prestigious position or may be an invaluable employee as a result of their unique skills. The perception is that whistle-blowers who hold significant power are less likely to experience retaliatory acts (Holtzhausen, 2007). Miceli and Near (1994) argued that potential whistle-blowers who do not gain organizational support are much more likely to face retaliation and may remain silent or report externally or leave the organization.

Similarly, Mesmer-Magnus and Viswesvaran (2005) shared these sentiments and suggested three options for potential whistle-blowers: leave the organization, blow the whistle, or remain quiet. Given the awareness of the possible consequences (and in particular, the high personal cost) to be derived as a result of reporting wrongdoing, it should not be surprising that potential whistle-blowers do not, or are less likely to, commit the act of reporting after carefully considering the limited options available to them (Miceli and Near, 1992b).

The literature has shown different types of whistle-blowers. They can be perceived positively as loyal, committed and prosocial employees (Miceli and Near, 1988), while others may be negatively labelled as disloyal, selfish, disruptive and antisocial individuals (snitches, rats, or traitors) (Camerer, 1996; Holtzhausen, 2007).[4] In determining the type and motives of the whistle-blower, their credibility needs to be ascertained. Some authors have also considered whistle-blowing as being altruistic behaviour, because it is perceived as acting in the public's interest (Miceli and Near, 1992b; Camerer 1996; Holtzhausen, 2007). However, one may argue that, at times, they may be simply be looking after themselves or seeking publicity.

Similar to Curtis (2006), it may be argued that whistle-blowing for audit practitioners can include the reporting of unethical acts committed by others to any reporting channels (internal or external), anonymous or not. Thus, for this thesis, in an auditing context, whistle-blowing is defined as the audit practitioner's voluntary act, over and above the profession's standard requirements to report or disclose any unethical acts or wrongdoing committed by other staff within the organization to any entity (internal or external) having the potential to correct the wrongdoing.

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[4] Vickers (1995) further categorised whistle-blowers as being either watchdogs or protestors. A watchdog is perceived as being one who discovers and report any wrongdoing to prevent financial and safety problems. A protestor seeks to publicise wrongdoing which may be motivated by a hidden agenda.

3.2 Whistle-blowing in the auditing context

Whistle-blowing may be perceived as a mechanism for reporting misconduct such as financial fraud and other wrongdoing in the organization (see Miethe and Rothschild, 1994). Whistle-blowing brings with it the conflict between public accountability and allegiance to the organization (Vinten, 2003). Potential whistle-blowers fear the loss of employment, friends or potential for promotion, and isolation from present and future employees and employers (Chiu, 2002; Vinten, 2003). Thus, an individual external auditor's decision to whistle-blow may be a complex phenomenon which may be contingent upon organizational, individual and situational factors (Miceli and Near, 1988; Miceli and Near, 1992b; Hooks et. al., 1994; King, 1999).

While a significant amount of research has been done to determine the influential factors of whistle-blowing in organizations, the motivational factors are still not clear (Brennan and Kelly, 2007). Possible reasons for this may include the fact that whistle-blowing may not be politically or socially embraced (Brennan and Kelly, 2007), or the high personal cost of reporting (Kaplan and Whitecotton, 2001).

Donaldson (1988) argued that ethics is primarily related to the determination of an action, behaviour, attitude or decision as either being good or evil, or right or wrong. Within the accounting field, audit practitioners are faced with moral dilemmas on whether or not to report observed questionable acts performed by other audit staff such as covering up irregularities in a client's tax affairs, client's manipulations of the financial statements to show a desired outcome rather than the true and fair view, non-disclosure of information on significant conflicts of interest in business dealings, and giving an unqualified audit opinion when the financial statements are not presented fairly (Helliar and Bebbington, 2004, p. 12).

The audit profession is uniquely different from other professions.[5] It has privileged access to client information and relationships with management or directors that can raise several conflicts, including loyalties to the client and public, and ethical, legal and professional restrictions from publicizing wrongdoing (e.g. Mitschow and Langford, 2000; Brennan and Kelly, 2007). For example, the audit profession has a requirement to maintain confidentiality and loyalty to the client, and yet the auditor may be required to report sensitive information that could harm the client and be perceived as being disloyal. Gaa (1992) argued that moral judgment by public accountants is moderated by the conflicting norms and rules of their professional organization (e.g. code of conduct) and their employer (the audit firm's various pressures). In addition, auditors are required to act in the public interest. Hwang, Staley, Te Chen and Lan (2008) argued that the auditor, as a professional, has responsibilities beyond that of an employee, since the auditor's allegiance is owed "to the public above and beyond their employer or client" (p. 507).

From the profession's point of view, the auditor is expected to be an independent professional, who will act with integrity in the public's interest. In the UK, the Institute of Chartered Accountants in England and Wales (ICAEW) (2007) and the Public Interest Disclosure Act (1998), and in the USA, the American Institute of Certified Public Accountants (AICPA) (2007) and Sarbanes and Oxley (2002) lend regulatory support for whistle-blowing. The question then is what the auditor should do if he or she observes a misdeed committed by another staff member?

The ICAEW's (2007) Code of Professional Conduct states that the audit staff should report to higher level management in the firm. A moral dilemma occurs when the auditor finds that senior staff is involved. If the individual decides to report, there

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[5] It is possible that in Enron's case, other professionals such as lawyers and bankers may have been aware of the accounting irregularities. However, the audit profession is required to act in the public's interest, whereas lawyers and bankers may be considered as advocates of the client.

are possible high personal costs such as being branded a 'snitch' and facing possible negative consequences such as loss of employment, harrassment and other forms of retaliation. If the practitioner chooses to report externally, the audit firm may also be perceived as violating client confidentiality and gaining a whistle-blower reputation, which could lead to a potential loss of current and future clients. However, there are potential benefits to be obtained from whistle-blowing such as reduction of legal liability and enhancement of the firm's reputation, if the wrongdoing is subsequently discovered and addressed (Miceli and Near, 1992b). When external auditors exercise independent judgements about financial statements, they are making ethical decisions. The profession's code of ethics such as those put forward by AICPA and the Canadian Institute of Chartered Accountants (CICA) are normally designed to guide the membership to behave ethically.

Prior research suggests that there may be complex psychological factors that significantly influence professional behaviour than merely trusting that professionals will follow the profession's or organization's code of conduct (Falk et al., 1999). Based on the review of the literature, whistle-blowing intentions by audit practitioners require having a reasonable degree of independence and a sense of moral duty to protect the public, if no action has been taken against the reported wrongdoing, especially when the audit firm's management is also involved. The significance of being independent stems from auditors' social accountability, a role expected of the audit staff in ensuring that corporate management is held accountable for the resources entrusted to them by the various stakeholders.

As indicated earlier, auditors are required to act in the public's interest due to principles of accountability and equal liberty in society. Tetlock (1985) observed that accountability refers to the perceived defence or justification of one's conduct or

70

behaviour to an authority that can reward or endorse the behaviour. This is critical to the audit process. For example, when an auditor sees another staff member committing wrongdoing, he or she can use internal audiences, such as top level management in the audit firm, and/or external audiences, such as the media and other regulatory bodies, to effect action. Employees in an organization have several options, when facing an unethical or unsatisfactory situation. Mesmer-Magnus and Viswesvaran (2005) identified three options: either leaving the organization, blowing the whistle, or remaining silent. The last option may involve raising the irregularity with the perpetrators, but subsequently remaining silent, and effectively becoming involved in the unethical activity. All options are relevant to audit practitioners.

It has been observed that none of the audit staff of Arthur Andersen, Enron's auditors, blew the whistle when the partner-in-charge of the audit advised the audit managers to shred the documents (Toffler and Reingold, 2003). Chung et al. (2004) queried what contributed to the failure or reluctance of Andersen's staff to blow the whistle, given Gaa (1992)'s argument the auditors are role-prescribed whistle-blowers. Prior research, while limited, found that audit staff tended to be reluctant to whistle-blow on colleagues (Finn and Lampe, 1992; Kaplan, 1995; Kaplan and Whitecotton, 2001). Chung et al. (2004) further argued that "there is very little empirical evidence on what factors promote whistle-blowing, especially in an auditing context" (p. 3).

An auditor's re-appointment and retention may be contingent on the relationship with the directors which may cause conflicts. For auditors, these conflicts may be influenced by the requirements of the ethical codes of the profession, the reporting requirement and the appropriate reporting channels and the need to act in society's interest as part of the profession's social contract. Brennan and Kelly (2007) make a compelling argument that auditors make decisions and distance themselves from the

71

users who rely on their judgement, and as a result, auditors may not be cognizant of the consequences of their decisions. They may have the knowledge of wrongdoing (e.g. acceding to an unethical request by a client) committed by a colleague or superior within the audit firm. However, a dilemma arises on whether the auditor has a moral and legal obligation to report the wrongdoing internally or externally. This becomes very problematic in situations, where the auditor may not want to upset the client.

Pater and Van Gils (2003) suggested that adherence to the profession's code of ethics and rules creates a 'rule-following' attitude, which is likely to discourage employees from making the right moral decisions. Brennan and Kelly (2007) argued that the justification for the need for auditors is based on society's trust, and any breach of that trust will diminish the need for independent auditors. Prior research has shown that audit staff may be less willing to whistle-blow on their peers (Kaplan, 1995). However, little is known of the reasons for this behaviour. Thus, more research on whistle-blowing will enable audit firms to promote the reporting behaviour of their staff (Kaplan and Whitecotton, 2001).

3.3 Review of a whistle-blowing case – Enron

Sherron Watkins, a CPA, was previously employed at Arthur Andersen as an auditor. In 2001, while employed at Enron and working under the Vice President and Chief Financial Officer, Andrew Fastow, she noticed that there were accounting irregularities which included artificial inflation of Enron's assets, set up of off-book partnerships and creation of special purpose entities (Brickey, 2003). Given her perceived discomfort of the possibility of being terminated by reporting directly to her boss, Andrew Fastow, or the President, Jeffrey Skilling, she opted to send a memo to the chairman, Kenneth Lay, about the accounting irregularities.

In August 2001, Ms. Watkins met with Kenneth Lay, who referred the matter to the company's lawyers and auditors (who were complicit in the development of some of the schemes or irregularities) for preliminary investigation. She resigned, after perceiving inaction by top management and receiving a demotion. Baynes (2002) reported that:

> After her disclosure, Ms. Watkins testified that Cindy Olson told her that Mr. Fastow wanted to terminate her employment and have her computer seized. Instead, she was moved to a different position and was advised to download all pertinent data from her computer. (p. 881)

In December 2001, Enron filed for bankruptcy amid claims of regulatory indifference. Ms. Watkins was perceived as a hero for reporting the irregularities and taking a moral stance in the face of organizational pressure (Lacayo and Ripley, 2002; Lucas and Koerwer, 2004).

As a result of this case, the audit firm of Arthur Andersen was closed down for its involvement in the irregularities and the shredding of important documents which was seen as an attempt to obstruct justice. Ms. Watkins did not report her concerns to an external channel, but rather via an internal memo (Baynes, 2002). She pointed out that other persons (Vince Kaminski, Head of Research and Jeff McMahon, Treasurer) who had spoken out on the issue, subsequently received reduced duties (Lucas and Koerwer, 2004). This highlights the personal cost of reporting (i.e. demotion or reprisals) that may be faced by potential whistle-blowers.

3.4 Review of previous models of whistle-blowing

The literature has shown that there have been several models of whistle-blowing. Near and Miceli (1985, p. 2) surmised that whistle-blowing was procedural and consisted of four elements namely: a) the whistle-blower; b) act of whistle-blowing, c) the receiver of the complaint (report), and d) the organization against which the whistle-blowing

report is made. This view subsequently received the support of others who perceived that whistle-blowing is a process that goes through several stages (Dozier and Miceli, 1985; Somers and Casal, 1994; Jubb, 1999; Grant, 2002; Brennan and Kelly, 2007).

Consistent with Dozier and Miceli's (1985) suggestion, the use of bystander intervention theory of Latané and Darley (1968, 1970) can help to explain the whistle-blowing decision process. For example, with relevance to whistle-blowing, Latané and Darley (1970)'s five stage decision framework would suggest: 1) awareness by the observer of the seriousness of the wrongdoing and its potential harmful consequences to others; 2) determine whether the wrongdoing requires any action such as whistle-blowing; 3) decision to bear responsibility for taking action such as reporting; 4) choice of an appropriate action, after weighing all possible alternatives and likely outcomes from reporting; and 5) taking the required action such as whistle-blowing (Miceli and Near, 1992b; Dozier and Miceli, 1985; Brennan and Kelly, 2007).

Graham (1986) presented a model of principled organizational dissent to explain the reporting behaviour of individuals (see Figure 5). The model proposes that the probability of reporting questionable or unethical acts will increase with greater perceived seriousness of the act, higher personal responsibility to report and lower perceived personal costs. Seriousness relates to the severity or magnitude of the issue, and can be measured by its monetary impact, frequency or harm to others. Personal responsibility is the psychological state of being morally compelled or duty bound to report the act (Graham, 1986). Personal cost relates to the observer's perceived risk of reprisal or retaliation from others if the observer makes the report.

Figure 5: Model of principled organizational dissent


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                    ┌──────────────┐
                    │ Perceived    │
                    │ seriousness  │
                    │ of           │
                    │ irregularity │
                    └──────────────┘
    ┌─────────────┐ ┌──────────────┐ ┌─────────────┐
    │ Description │ │ Attribution  │ │ Choice of   │
    │ of an       │→│ of personal  │→│ reporting   │
    │ issue of    │ │ responsibility│ │ behaviour   │
    │ principle   │ │ for          │ │             │
    └─────────────┘ │ reporting    │ └─────────────┘
                    └──────────────┘
                    ┌──────────────┐
                    │ Perceived    │
                    │ personal     │
                    │ cost of      │
                    │ reporting    │
                    └──────────────┘
```
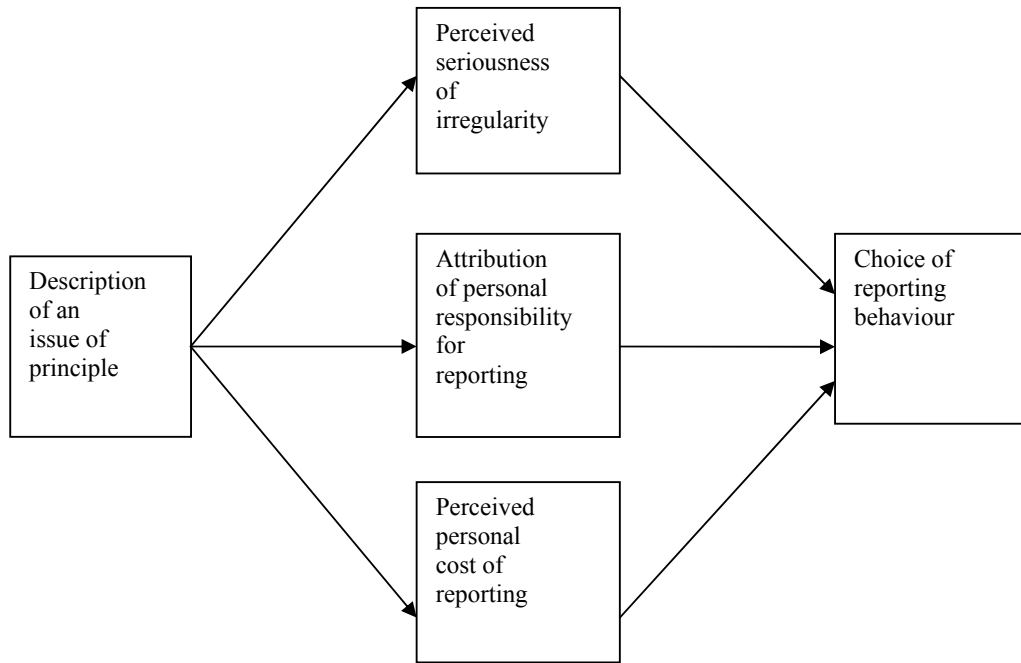
Adapted from Graham (1986, p. 35) and Schultz et al. (1993, p. 79)

Graham's (1986) work, extended by Schultz et al.'s (1993) model of discretionary reporting, proposed that an individual's evaluation of perceived seriousness and personal cost of reporting, and attribution of personal responsibility of reporting may influence reporting intentions. Kaplan and Whitecotton (2001) proposed an extension to this model by including professional commitment. Given the uniqueness of public accounting with its formal certification and licensing and highly constrained role defined behaviours, Gaa (1992) suggests that some form of commitment (e.g. independence commitment) may be a necessary construct for any proposed model for auditors.

Finn and Lampe (1992) hypothesised that several individual and situational factors would moderate the individual's decision to whistle-blow. Individual factors included ego strength, locus of control and field dependence, while situational factors were immediate job context, pressures in the organization, social influences (significant others), obeying authority, moral conflict resolution and the understanding of others' views (Finn and Lampe, 1992; Seifert, 2006). Finn and Lampe's (1992) hypothesis supports Kaplan and Whitecotton's (2001) conclusion that organizational culture and audit firm norms may influence the beliefs of the acceptability of whistle-blowing. This lends further support for the possible use of organizational support and group norms in future models. Furthermore, the issue-contingent variables that were found to have a significant impact on auditors' ethical behaviour were social consensus, probability of effect, temporal immediacy and proximity (Finn and Lampe, 1992). Thus, this lends further support for the inclusion of moral intensity in future whistle-blowing models.

Ponemon (1994) provided a model that identified the whistle-blower's decision-making process as consisting of several ethical components. He argued that three conditions are necessary for the performance of whistle-blowing. These conditions include ethical sensitivity, ethical competence and perseverance. Ethical sensitivity is the awareness by the individual that there is a wrongdoing. Ethical competence is where the individual develops the appropriate strategy to correct the wrongdoing. Perseverance relates to the follow through with an ethical course of action based on the strategy developed. The whistle-blower's ethical reasoning, cognitive process and ethical framing influence the above three conditions (Rezaee, 2002).

Hooks et al.'s (1994) model of whistle-blowing, an adaptation of Miceli and Near's (1992b) model, entails the internal or external reporting of unethical behaviour to the relevant authority in the organization. They proposed, within the context of

76

auditing, a model of whistle-blowing which delineated the processes involved in reporting fraudulent activities. The model suggests that whistle-blowers must be cognizant of the act, determine the act to be unethical and serious, feel a sense of obligation to report, determine actions and consequences and finally report.

Hooks et al.'s (1994) model is moderated by contextual variables related to the organization culture of reporting, the significance of the questionable act and the whistle-blower's characteristics (See Figure 6). They proposed that the climate of any organization, which encourages the reporting of wrongdoing, should reduce the likelihood of a perpetrator engaging in fraudulent behaviour. Hooks et al.'s (1994) model proposed that whistle-blowing may be an internal control mechanism that can enhance the communication of wrongdoing internally or externally, thus preventing and detecting financial statement fraud. Incorporating such factors as personal values, ethical principles, group norms, codes of conduct, education, organizational stature, and tenure status in their model, they argued that organizational culture was more influential on the decision to whistle-blow than characteristics of the wrongdoing, responsibilities and social influences and the personal characteristics of the observer.

Figure 6: Hooks et al.'s (1994) model of the whistle-blowing process

External Audit Function as a Method of Fraud Detection

Internal Control as a Method of Fraud Detection

| Financial Statement Fraud Occurrence | Step 1 The organizational member is aware of the wrongdoing | Step 2 The observer believes the wrongdoing is deserving of action and feels responsible for taking the action | Step 3 The observer believes: • At least one alternative to silence is feasible • The action being considered is most appropriate • The benefit of the action must outweigh the costs | Whistle-blowing Report |

1. Personal Variables
2. Situational Variables
3. Combined Personal and Situational Variables

Organizational Culture/Tone at the top
Characteristics of the Wrongdoing
Responsibilities and Social Influences
Observer's Individual Characteristics

Seen in Rezaee (2002, p. 108). Hooks et al.'s (1994) model was adapted from Miceli and Near (1992b).

Finn (1995) presented a five stage model of whistle-blowing, which was based on Rest's (1986) and Miceli and Near's (1992b) models, and at each stage, the observer assesses prior actions and reactions of organizational members. Near and Miceli's (1995) model explored five factors influencing effective whistle-blowing, three factors at the individual level (characteristics of the whistle-blower, the recipient of the complaint or report and the wrongdoer), together with the characteristics of the wrongdoing and the organization (See Figures 7 and 8). They proposed that the characteristics of the wrongdoing and the organization will interact and significantly influence the whistle-blower's utilisation of external reporting mechanisms. For example, the dependence of the organization on wrongdoing (like Enron) and the weak level of support for whistle-blowing in the organization can influence the individual's intention to report externally.

Figure 7: Near & Miceli's (1995, p. 682) model of individual variables that affect the outcome of whistle-blowing

| *Predictor Variables* | *Moderator Variables* | *Outcome Variables* |

Characteristics of the Whistle-blower

Credibility

Power

Anonymity (may also interact with credibility)

Characteristics of the Complaint Recipient

Credibility

Power

Support for whistle-blower vs. wrongdoer

Interaction effect

Organization's willingness to change

Characteristics of the Wrongdoer

Credibility

Power

Termination of wrongdoing

Future organizational performance

Organization's control of elements in the external environment

Figure 8: Near & Miceli's (1995, p. 683) model of situational variables that affect the outcome of whistle-blowing

Predictor Variables	*Moderator Variables*	*Outcome Variables*

Characteristics of the Wrongdoing

Organization's dependence on the wrongdoing

Convincing evidence of wrongdoing

Legal basis for the complaint

Interaction effect

Whistle-blower's use of external channels

Interaction effect

Characteristics of the Organization

Appropriateness of whistle-blowing

Climate supportive of whistle-blowing

Less bureaucratic structure

Low organization power in environment

Organization's willingness to change

Termination of wrongdoing

Future organizational performance

Organization's control of elements in the external environment

3.5 Definitions of wrongdoing or questionable acts

Near et al. (2004) argued that organizational wrongdoing includes unethical, illegal or harmful practices such as fraud and embezzlement. The literature highlights two categories of wrongdoing: occupational and organizational crime. Occupational crimes may include self-centered acts of wrongdoing such as financial fraud and falsifying records (Miceli and Near, 1992b; Miethe, 1999). Within an audit context, organizational wrongdoing can include fraudulent financial reporting, shredding of working papers and manipulation of accounting standards.

The auditing profession requires the auditor to report any wrongdoing or questionable acts committed either by the client (auditee) or colleagues in the audit firm. Graham (1986) defined a questionable act as an action which "violates a standard of justice, honesty or economy" (p. 2). Schultz et al. (1993, p. 75) argued that Graham's definition is consistent with various standards in the auditing literature involving illegal acts, wrongdoing and intentional errors in the financial statements.

Whistle-blowing may be viewed as prosocial behaviour when the reporting of wrongdoing is consistent with acting in the public's interest by doing what is perceived to be right (Holtzhausen, 2007). At times, whistle-blowing may be viewed as malevolent (anti-social), when the whistle-blower performs the disclosure for selfish reasons which may harm the organization.

3.6 Internal and external reporting

Whistle-blowers are more likely to report wrongdoing to parties who may be in an influential position to rectify the wrongdoing (Callahan and Dworkin, 1992; Kaplan and Schultz, 2007). Employees have several options: either to remain silent, to blow the whistle internally, to blow the whistle externally or leave the organization (Mesmer-

Magnus and Viswesvaran, 2005). These options may be based on one's perceptions of the level of personal responsibility to report the wrongdoing or simply from fear of retaliation (high personal cost).

Whistle-blowers can report wrongdoing in the organization, specifically to relevant internal or external authorities (Near and Miceli, 1995; Chung et al., 2004). Internal whistle-blowing refers to the reporting of wrongdoing and unethical acts to appropriate persons in the firm's hierarchy, who may be able to correct the misconduct. The complaint recipient may be managers, partners or ethics officer, the client's audit committee or board of directors, or a designated authority within the firm or the hotline (Finn, 1995; Chung et al., 2004). External whistle-blowing refers to the reporting of wrongdoing to a complaint recipient outside of the organization, and may include the media, professional associations, regulatory bodies and interest groups (Miceli and Near, 1994; Near and Miceli, 1995; Chung et al., 2004; Holtzhausen, 2007).

Internal whistle-blowing has been argued to be the preferred option for the observer and for the firm (Ponemon, 1994). A significant body of research shows that most whistle-blowers prefer the use of internal channels to report questionable acts in an organization (Miceli and Near, 1992b). Internal reporting permits the organization to privately and internally correct the wrongdoing before the issue escalates when it is publicized in the media and can become a possible scandal that could be detrimental and costly to the organization (Barnett, 1992). Internal reporting may be perceived as the employee showing allegiance to the organization (Somers and Casal, 1994). Internal whistle-blowers may be considered as prosocial employees who wish to protect the reputation of the organization (Miceli and Near, 1992b), and will only go externally or keep silent, if the wrongdoing was not satisfactorily resolved internally. However, whistle-blowing may not be often accepted within an organization because it is deemed

threatening and a form of organizational dissent (Miceli and Near, 2002). Thus, whistle-blower may be silenced or the reports may be buried or ignored (Miceli et al., 1991; Mesmer-Magnus and Viswesvaran, 2005).

Callahan et al. (2002), citing from Bok (1989), argued that blowing the whistle internally may be considered as being more ethical than going externally. Management may perceive internal whistle-blowing in a favourable light and is likely to promote it (Holtzhausen, 2007). An ethical culture or climate in organizations should be established where employees are encouraged to report wrongdoing internally (King, 1999). The Sarbanes Oxley Act of 2002 strongly supports internal reporting of wrongdoing in organizations (Chung et al., 2004; Seifert, 2006; Kaplan and Schultz, 2007). Chung et al. (2004) suggested that within the audit profession, there is likely to be more pressure to blow the whistle internally than going outside the firm.

Research has shown that whistle-blowers who report externally are more likely to experience greater retaliation from organizational members than those who report internally (Dworkin and Baucus, 1998; Near and Miceli, 1986; Dworkin and Callahan, 1991). Whistle-blowers who have failed in their attempts to remain anonymous have also faced greater retaliation (Miceli and Near, 1994). If an employee of an audit firm discovers wrongdoing committed by a colleague (e.g. partner) and is reluctant or unable to report the matter internally, the individual may opt to disclose externally or remain silent.

External whistle-blowing can adversely or positively affect the reputation and integrity of the organization. For example, Cynthia Cooper of WorldCom discovered fraudulent accounting procedures at her company and chose to internally report the matter to the audit committee. Her internal report allowed the company to address the issue by firing the chief financial officer and publicly disclosing the matter (Near et al.,

2004). Specifically, Near et al. (2004) reported that Cynthia Cooper stated that "I feel like I did my job" (p. 219).

3.7 Whistle-blower protection legislation

The major hindrance to whistle-blowing is the fear of retaliation (e.g. loss of jobs and victimization) by the employer. To protect the employee from retaliation and encourage whistle-blowers to come forward, whistle-blower protection legislation has been enacted in the United Kingdom (UK) and USA. In the UK, the Public Interest Disclosure Act (PIDA 1998) covers employees in organizations, and suggests that when an employee makes the decision to whistle-blow, he or she should first report internally (Groeneweg, 2001). Thus, the PIDA identifies the appropriate procedures for disclosures and emphasizes the need to act in good faith (Holtzhausen, 2007). Under the PIDA Act, disclosures should include the reporting of criminal offences, non-compliance with legal requirements, harm to others, professional misconduct and any deliberate suppression of important information (Bowers, Mitchell and Lewis, 1999). The PIDA Act provides protection against retaliation for whistle-blowing on perceived wrongdoing in organizations.

After the corporate scandals of Enron and WorldCom, the Sarbanes Oxley Act was established in 2002, which introduced corporate governance rules including whistle-blowing protection by making several provisions. Firstly, Section 301 of the Sarbanes Oxley Act (2002) encourages effective whistle-blowing by requiring that audit committees set up adequate reporting mechanisms to maintain confidentiality and anonymity relating to questionable accounting or auditing issues (Chung et al., 2004; Kaplan and Schultz, 2007).

Secondly, the Sarbanes Oxley Act (2002) included more stringent requirements for auditor independence, especially restricting provision of auditing and non-audit services by the same audit firm and enhancing the independence of the audit committee (Baker, Bealing, Nelson and Staley, 2006). Thirdly, Section 806 of the Act protects any employee who whistle-blows from any form of retaliation by the organization. For example, Section 806 of the Sarbanes Oxley Act (2002) proposes that no employee in a publicly traded company should be harassed, fired, demoted, discriminated against or harassed by another member of the organization for performing a lawful act such as whistle-blowing.

Under Sarbanes Oxley Act (2002), an employee who wins a lawsuit against the employer for retaliation may claim costs of damages including reinstatement and legal fees. The Act also imposes a term of imprisonment and a fine for persons who retaliate against whistle-blowers (Dworkin, 2007). The professional accounting bodies have also prescribed that disclosures be made in the public's interest. For example, the AICPA's (2007) Code of Professional Conduct requires members to act with integrity and in the public's interest.

3.8 Antecedents, correlates and consequences of whistle-blowing

Prior research has focused on antecedents, correlates, and consequences of the whistle-blowing decision, and sought to understand the dynamics and process of whistle-blowing. Empirically, the literature has also looked at personal variables associated with the whistle-blower, contextual factors and their characteristics of the wrongdoing and wrongdoer (Miceli et al., 1991; King, 1997). Most of this research has been conducted using survey methods or using vignettes (scenarios) that asked the individual to assume the role of a potential whistle-blower. It is acknowledged that access to

actual whistle-blowers is quite difficult, and this has led researchers to carry out investigations on intended whistle-blowers (Mesmer-Magnus and Viswesvaran, 2005).

Mesmer-Magnus and Viswesvaran (2005, pp. 278-279), in their excellent review of the literature, have cited reasons for this to include: a) the inherent difficulty of researching actual unethical behaviour in the workplace; (b) the possibility that actual whistle-blowers' identity may be revealed based on the information given to the researcher; (c) the inherent difficulty in sourcing actual whistle-blowers; and (d) the presence of social desirability bias, via self reports. This section reviews the literature of whistle-blowing under the headings of personal characteristics of whistle-blowers, situational (contextual) variables, characteristics of the wrongdoing and consequences of whistle-blowing, consistent with Mesmer-Magnus and Viswesvaran (2005). A table has been adapted from Seifert (2006) and updated to reflect the current and key literature on whistle-blowing that is pertinent to this current study. Thus, Table 2 summarises these prior and relevant studies on whistle-blowing.

Table 2: Prior studies on whistle-blowing

Authors	Participants	Factors	Methodology	Main findings
Arnold & Ponemon (1991)	106 internal auditors.	Whistle-blowing, retaliation and ethical reasoning.	Experiment using ethical scenarios.	Internal auditors with lower ethical reasoning levels exhibited lower tendencies to whistle-blow on wrongdoing. It was more noticeable when there was a presence of retaliation.
Finn & Lampe (1992)	358 auditing students, staff auditors and audit managers.	Measured whistle-blowing decision, ethical judgment, issue-contingent and situational variables.	Experiment using four ethical vignettes.	Ethical judgement is positively related to whistle-blowing decisions. Ethical decision-making was influenced by issue-contingent, situational and individual variables.
Schultz et al. (1993)	145 managers and professional staff in companies.	Examined the likelihood of reporting questionable acts across different cultures.	Experiment - Ethical scenarios among U.S., Norwegian and French subjects.	Personal cost was negatively related to whistle-blowing. Seriousness of wrongdoing and personal responsibility were positively related to whistle-blowing.
Hooks et al. (1994)	Not applicable.	Synthesised prior research on whistle-blowing and internal control.	Review literature and proposed a conceptual model.	Proposed a model that identified individual, situational, and organizational factors influencing the decision to whistle-blow.

Authors	Participants	Factors	Methodology	Main findings
Ponemon (1994)	Not applicable.	Reviewed literature on the ethical factors influencing the decision to whistle-blow.	Reviewed prior literature and proposed a conceptual model.	Proposed a model that includes the individual's ability to structure an ethical problem, ethical competence and perseverance to carry out the decision.
Finn (1995)	Not applicable.	Developed a model to encourage whistle-blowing based on Rest (1986) and Miceli and Near (1992b)'s models.	Used theory and prior models to build a conceptual model.	Proposed a five stage model which requires the individual to assess his or her actions based on responses of other organizational members.
Kaplan (1995)	57 audit seniors in a CPA firm.	Investigated the likelihood of auditors to report on discovery of premature signed off procedures.	Experiment using ethical scenarios.	The need for the audit procedure and poor work history of the audit staff were positively related to the reporting intentions of audit seniors.
Label & Meithe (1999)	353 auditors.	Examined the level of support for whistle-blowing legislation.	Survey of CPAs in the US.	Majority of auditors opposed legislation and preferred internal reporting and perceived external whistle-blowing as violating the profession's code of ethics.
Kaplan & Whitecotton (2001)	73 audit seniors.	Investigated auditors' intentions to report another audit staff member who is contemplating a job offer with the client.	Experiment - using ethical scenarios.	Personal responsibility was positively related to auditors' intentions to report. Personal cost was negatively related to auditors' intentions to report.

Authors	Participants	Factors	Methodology	Main findings
Chiu (2002)	254 Chinese MBA students.	Investigated the ethics of whistle-blowing in Chinese society.	Questionnaire	Locus of control moderated the relationships between: a) ethical judgement and whistle-blowing intentions; and b) whistle-blowing judgement and whistle-blowing intentions.
Chung et al. (2004)	95 Auditors.	Measured auditors' intentions to report internally or externally. Also looked at rule-based and principles-based climates.	Experiment - using ethical scenarios	In a principles-based climate, individuals were more likely to whistle-blow. However, they were less willing to report more powerful individuals.
Ayers & Kaplan (2005)	74 students.	Examined employees' reporting intentions after discovering wrongdoing committed by a consultant.	Experimental approach using cases and questionnaires to report the results of a study.	Seriousness, personal costs and personal responsibility are significantly related to intentions to report wrongdoing. Seriousness and personal cost are significantly related to the choice of an anonymous channel.
Mesmer-Magnus & Viswesvaran (2005)	26 samples covering 18,781 respondents.	Reviewed literature on individual and contextual factors, characteristics of the wrongdoing and retaliation.	Meta-analysis.	Personal, contextual, and wrongdoing characteristics are significantly related to whistle-blowing intentions rather than actual whistle-blowing.

Authors	Participants	Factors	Methodology	Main findings
Curtis (2006)	220 under-graduate auditing students.	Examined influence of mood, seriousness, personal responsibility and personal cost on the willingness to report unethical actions of a colleague.	Use of a judgement case and a demographics survey.	Higher individual intentions to report wrongdoing by a colleague are related to higher perceived seriousness, higher perceived personal responsibility, and lower perceived personal cost; negative mood related to decreased intentions to report.
Brennan & Kelly (2007)	100 final year students (trainee accountants and auditors)	Willingness to challenge partner's inappropriate decision and awareness of legislation.	Questionnaire, including scenario sections on dilemmas in deciding the possible causes of action based on audit partner's response.	The existence of adequate structures for whistle-blowing in firms influenced trainee auditors to be more willing to report wrongdoing.
Kaplan and Schultz (2007)	90 MBA students.	The likelihood of reporting, seriousness of treating anonymous reports, and the organization's ability to follow up on reports.	Utilised questionnaires and scenarios.	Presence of an anonymous channel reduces the willingness to report to non-anonymous channels.
Taylor & Curtis (2010)	120 senior auditors.	Investigated professional and organizational commitment, moral intensity and reporting intentions.	Utilised questionnaires and vignettes.	Moral intensity influences reporting intentions. Professional commitment and auditor commitment influence likelihood of reporting and perseverance in reporting, respectively.

Adapted from Seifert (2006, pp. 6-10).

3.8.1 Personal characteristics of whistle-blowers

Research has shown personal characteristics that are likely to influence the decision to whistle-blow. Personal characteristics include age, gender, educational level, job position, locus of control, ethical reasoning, job performance, organizational commitment, professional commitment, tenure, personal responsibility to report and approval of whistle-blowing (Hooks et al., 1994; Near and Miceli, 1996; Sims and Keenan, 1998; Kaplan and Whitecotton, 2001; Mesmer-Magnus and Visweravan, 2005; Seifert, 2006; Taylor and Curtis, 2010). This has led Mesmer-Magnus and Visweravan (2005) to conclude that the literature showed that whistle-blowers tended to be excellent job performers, well educated, hold top positions in the organization's hierarchy, possess high moral development and consider whistle-blowing as a means of correcting unethical behaviour.

Empirical research suggests that individuals whose responsibility is to report, will face less retaliation and possibly assist in curtailing the wrongdoing (Miceli and Near, 2002). Parmerlee, Near and Jensen (1982) argued that employees who are highly valued by the organization may face greater retaliation than those who are regarded as being less valuable. This may be a result of the high positions that these valued employees occupy in the organization's hierarchy, which suggests that loyalty is owed to the organization, given the level of trust and value that is bestowed on them.

Research has used theories from social psychology to explain whistle-blowing behaviour (Near and Miceli, 1995; Mesmer-Magnus and Visweravan, 2005). For example, Miceli et al. (1991, p. 115) argued that idiosyncrasy theory (Hollander, 1958) would explain that high performing staff will tend to have greater latitude in moving away from organizational norms, and as a result of their value and influence may possibly avoid major retaliation when reporting wrongdoing compared to poor

performers. French and Raven's (1959) theory of power relationship suggests that employees can achieve significant power and influence because of their exceptional skills, excellent performance level, high position and status in the organization and perceived trustworthiness (Miceli and Near, 1994, p.776). Therefore, individuals or employees, with this significant power, may be in a better position to report wrongdoing.

Arnold and Ponemon (1991) used the DIT (measuring moral reasoning) to examine the whistle-blowing perceptions of 106 internal auditors. They found that auditors who scored lower on moral development were unwilling to use whistle-blowing as an avenue for reporting wrongdoing in the organization, especially when the whistle-blower was faced with the possibility of retaliation in the form of losing one's job. They also found that the potential whistle-blower's position in the organization may influence an auditor's intention to whistle-blow.

Finn and Lampe (1992) studied auditors' reporting intentions of questionable acts among students, audit managers and audit staff, using vignettes. This study focused on the auditor's likelihood to engage in questionable acts (i.e. unethical behaviour) and the propensity of the auditor to report their colleague's unethical behaviour. The results indicated that the auditors would not perform the unethical behaviour in the scenarios. However, a minority indicated their willingness to whistle-blow on a colleague who performed the questionable act. Finn and Lampe (1992) found that practising auditors were less supportive of whistle-blowing compared to auditing students. They also found that there was a significant and positive correlation between ethical judgement and the whistle-blowing decision, which was influenced by issue and situation-related factors.

Hooks et al. (1994) further identified from prior research that personal variables such as education, age, gender, personal values, job satisfaction and organizational tenure may significantly influence the likelihood of reporting. The identification of the factors from the literature seems to show that individual variables can influence whistle-blowing tendencies. For example, an individual with the ability to influence others, who is in a powerful position within the audit firm, has high personal values and commitment to the organization, and perceives low personal costs, may be more inclined to whistle-blow.

Several studies report on the observer's prescribed role responsibility to report wrongdoing. For example, Miceli and Near (1984) found that individuals whose roles and duties require them to observe and report (i.e. their prescribed role) are more likely to have opportunities to report. Schultz et al. (1993) found that perceived responsibility to report was the most influential variable affecting reporting frequency among managers and professionals. Individuals may perceive personal responsibility to report because of the possible negative effects to the organization that might arise from non-reporting. An individual's position in the organization and the fact that he or she may possess unique knowledge of the problem and committed to the organization can evoke feelings of personal responsibility. However, even if an observer of wrongdoing perceives some level of personal responsibility for reporting, the possibility still exists that the individual may remain silent (Miceli and Near, 1992b).

Prior research has found support for the auditors' role-prescribed responsibility for reporting wrongdoing and its justification as acting in the public interest (Miceli et al., 1991; Ponemon, 1994). For example, Miceli et al. (1991) found that internal auditors tended to report questionable acts, based on moral obligation and perceived

role responsibility. In addition, these authors found that internal auditors were more likely to report externally when there was potential harm to the public or colleagues.

Kaplan (1995) investigated audit seniors' intentions to report unethical acts such as procedures prematurely signed-off, which are subsequently discovered. Using vignettes, he found that the likelihood of audit seniors reporting a premature sign off was influenced positively by the need for a specific audit procedure and the auditor's poor work history. In addition, Kaplan (1995) found no support for gender influencing audit seniors' intentions to report wrongdoing.

Several studies have explored the influence of attitudes and subjective norms on auditors' behavioural intentions. For example, Gibson and Frakes (1997) used a survey approach and the theory of reasoned action to explore unethical decision-making among Certified Public Accountants (CPAs). Gibson and Frakes (1997) focused on violations of the AICPA's Code of Professional Conduct and questionable audit behaviours such as premature sign-off of audit steps and underreporting of time. It was found that the CPAs were generally unwilling to report unethical behaviour. The study also found that the theory of reasoned action was useful in explaining accountants' unethical behaviour. Thus, future research can look at using the theory of planned behaviour (the successor to the theory of reasoned action) in measuring whistle-blowing intentions.

Kaplan and Whitecotton (2001) examined the influence of individual antecedents (perceptions of the seriousness of the act, personal cost of reporting, personal responsibility for reporting and level of commitment to the auditing profession) on reporting intentions among 73 audit seniors. These researchers used a scenario that depicted an ethical dilemma, which highlighted the discovery that another audit staff member is contemplating a job offer with the client, which is in violation of

the AICPA's ethics rulings. Kaplan and Whitecotton (2001) found that lower perceived personal cost of reporting and higher perceived personal responsibility influence higher auditors' reporting intentions. There was no support found for the relationship between the two independent variables (professional commitment and perceived seriousness) and auditors' reporting intentions.

Ayers and Kaplan (2005) examined employees' intentions to report wrongdoing committed by consultants in instances where there may be anonymous reporting or not. Support was found for the relationship between perceived seriousness of the act, personal responsibility, personal cost of reporting and moral equity dimensions and reporting wrongdoing in instances where there were non-anonymous reporting channels. In situations where the reporting channel was anonymous, support was found only for perceived seriousness and personal cost.

Curtis (2006) investigated the impact of mood on individuals' intentions to report colleagues' unethical acts. Curtis (2006) also looked at the impact of moral intensity, as defined by seriousness and responsibility, on reporting intentions. Curtis' study found that more negative mood was significantly related to decreased reporting intentions. The author also found that greater individual reporting intentions were significantly influenced by perceptions of higher levels of seriousness and personal responsibility, and lower personal cost. The study further revealed that more negative mood reduces perceived seriousness of an act and one's level of personal responsibility for reporting that act, and that any decrease in perceived seriousness and responsibility is likely to decrease one's willingness to blow the whistle. Thus, Curtis (2006) found empirical support for the influence of perceived moral intensity on reporting intentions.

Overall, these findings indicate that personal responsibility for reporting and personal costs of reporting are important factors within the audit profession and should

be incorporated in any proposed model on whistle-blowing among auditors. Kaplan and Whitecotton (2001, p. 62) suggested that Jones' (1991) moral intensity could be incorporated into a model of reporting questionable acts.[6]   Indeed, Cohen and Martinov-Bennie (2006) and Jones et al. (2003) argued that research is needed on the impact of moral intensity on auditors' likelihood of whistle-blowing, given the requirements of Sarbanes-Oxley Act of 2002.

3.8.2 Situational (contextual) variables

Situational (contextual) variables have been found to be quite influential in the decision by an individual to whistle-blow (Hooks et al., 1994; Finn, 1995; Near and Miceli, 1996). These situational variables include organizational support, organizational culture or climate, the structure of the organization, power of the person receiving the report, retaliatory threats and the organization's size (Miceli and Near, 1992a, 1992b; King, 1999; Mesmer-Magnus and Viswesvaran, 2005). Prior research has shown that the level of perceived support from the organization's hierarchy may be influential in the decision to whistle-blowing and the choice of reporting channel (internal and external) that will be used (Hooks et al., 1994; Keenan, 2000). For example, Miceli et al. (1991, p. 116) suggested that social exchange theory (e.g. Thibaut and Kelley, 1959; Blau, 1964) may explain that strong organizational support should encourage an individual to use internal channels to correct wrongdoing, before reporting externally.

Hooks et al. (1994) argued that any potential harm to colleagues is likely to result in increased external reporting. In their review of the literature, Hooks et al. (1994) also found that other factors which are likely to increase whistle-blowing include situations when the job is role prescribed, the existence of high professional and

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[6] Jones' moral intensity model has been discussed in chapter 2, and will be further discussed in chapter 4, when the proposed conceptual model is presented.

societal support, a supportive organizational climate, 'tone at the top', the establishment of adequate reporting channels, and low threat of retaliation. Empirical research has demonstrated that where the perceived threat of retaliation is greater, potential whistle-blowers will be less inclined to report wrongdoing (Near and Miceli, 1996; King, 1999). Perceived fear of retaliation is more likely to result in external reporting (Miceli et al., 1991).

The organizational climate may influence an individual's tendency to whistle-blow (Miceli and Near, 1992b; Chung et al., 2004). If the organization is viewed as being supportive of and values whistle-blowing, then there is the likelihood that members will report wrongdoing. Miceli and Near (1992b) reported that the level of organizational responsiveness was positively and significantly associated with whistle-blowing behaviour. Further research has shown that there was a positive and significant relationship between the existence of reporting policies and managers' perceptions that an entity encourages or approves whistle-blowing (Keenan, 1990). Thus, Near and Miceli (1996) conclude that whistle-blowing is more likely to increase when there is a strong relationship between individual and organizational values, which seemingly correlates with the theory of value congruence, proposed by Enz (1988).

Prior research on group behaviour has revealed that organizational members tend to respond more negatively to whistle-blowing by their colleagues (Trevino and Victor, 1992). Logically, group members may fear group retaliation or ostracism as being a disincentive to whistle-blow. Within ethics research, O'Leary and Pangemanan (2007), using vignettes, researched the impact of groups, compared to individuals, on ethical decision-making among 163 final year accounting students. These authors argued that there is limited evidence with respect to whether individual ethical reasoning is inferior to group ethical decision-making. The study found that groups

tended to be neutral (i.e. safer options), which is a compromised (consensus) position, as a result of conformity pressure, when deciding to act ethically or unethically. This has led O'Leary and Pangemanan (2007) to conclude that groups tended to reach consensus decisions rather than the best ethical decisions. To this author's knowledge, there has been little research conducted on whistle-blowing among groups, and in particular with audit teams. Thus, more research is needed to determine the influence of groups on whistle-blowing.

Label and Miethe (1999) examined whistle-blowing legislation and its level of acceptance among 353 auditors. These authors found that 75% of the sample preferred internal reporting compared to 25% who chose external whistle-blowing. A large proportion (73%) said they were against any legislation that puts greater responsibility on auditors to report misconduct externally. With respect to the reporting of fraud and other illegal acts to higher levels of management, auditors in the sample felt they should report them: to the audit client (99%), to audit partners and seniors (96%), and to the Securities and Exchange Commission (SEC) (49%). Sixty three percent (63%) of the auditors in the sample perceived that external whistle-blowing was an ethical violation of the professional code of ethics on the grounds that it breaches auditor-client confidentiality. In addition, the study found that majority of auditors (91%) perceived that whistle-blowing could result in losing clients.

Brennan and Kelly (2007) surveyed 100 trainee auditors in Ireland. They examined the level of confidence that trainee auditors had in their firms' internal and external reporting mechanisms, their willingness to question the audit partner's unsatisfactory decision, and the impact of legal and regulatory protection on the likelihood of blowing the whistle. These researchers found that where audit firms had implemented adequate reporting mechanisms, respondents were more likely to whistle-

blow and be less fearful of retaliation that could negatively affect their careers in the profession. Brennan and Kelly (2007) also found that trainee auditors seemed to be more willing to challenge the audit partner's inappropriate decision or action on wrongdoing.

Chung et al. (2004) researched auditors' intentions to report wrongdoing internally (to the audit firm's managing partner) or externally (to the board of directors). They found that auditors preferred to report internally rather than externally. These authors further found that auditors in a principle-based climate were more likely to report wrongdoing compared to their colleagues in a rule-based environment. Based on the apparent reluctance of auditors, and indeed, employees in other organizations, to whistle-blow, Ponemon (1994) recommended the implementation of a reward system (e.g. offering monetary rewards or the granting of long-term employment contracts) as part of an institution's control system to promote the reporting of wrongdoing.

There has also been research that explored the relationship between whistle-blowing and culture (Schultz et al., 1993; Tavakoli et al., 2003; Patel, 2003). For example, Schultz et al. (1993) investigated whistle-blowing in an international context among American, French and Norwegian subjects. Schultz et al. (1993) adapted their model for reporting questionable acts from Graham (1986), by using perceived seriousness of the act, personal responsibility for reporting and the personal cost of reporting to predict whistle-blowing intentions. The study found support for a negative relationship between personal cost to report and the likelihood of reporting. Support was also found for positive relationships between the independent variables (perceptions of seriousness and personal responsibility for reporting) and the likelihood of reporting. Schultz et al. (1993) also found that American managers considered personal responsibility and personal costs as influential factors in the whistle-blowing

process. Patel (2003) found that practising accountants in Australia exhibited higher tendencies to blow the whistle, and showed greater acceptance of whistle-blowing as an internal control mechanism than their Indian and Chinese-Malaysian counterparts.

3.8.3 Characteristics of the wrongdoing

Prior research has found that severity and types of wrongdoing, as well as the characteristics of the wrongdoer, may influence whistle-blowing (Miceli and Near, 1985; Near and Miceli, 1996; Mesmer-Magnus and Viswesvaran, 2005). Dozier and Miceli (1985) asserted that potential whistle-blowers will ascertain evidence of wrongdoing, make an evaluation of the materiality of the questionable act, and at times, determine whether the wrongdoing personally affects them, before taking action. Thus, Dozier and Miceli's (1985) assessment seemingly correlates with Latané and Darley's (1970) research on "bystander effect," which may suggest that persons are less likely to report wrongdoing, due to the possible belief that others present in the organization will take action. This apparent inaction is termed 'perceived diffusion of responsibility.'

Prior research indicates that when organizational support is perceived as being high, wrongdoing that threatens staff or the existence of the organization is more likely to be reported internally. However, organizational members are more likely to report externally, if it is perceived that there is a threat to a co-worker or that the organization thrives on wrongdoing (Miceli and Near, 1988; Miceli et al., 1991; Sims and Keenan, 1998). Research further indicates that senior management who benefits significantly from continued wrongdoing and unethical behaviour in the organization may have the tendency to retaliate against whistle-blowers who stand in their way (e.g. Miceli et al., 1991; Casal and Zalkind, 1995; Mesmer-Magnus and Viswesvaran, 2005). Similarly,

Dworkin and Baucus (1998) found that management tended to threaten external whistle-blowers with retaliation or reprisals much more quickly than those who report internally.

3.8.4 Consequences of whistle-blowing

The literature has shown that there are many consequences (positive and negative) of blowing the whistle. When the complaint is made, management may ignore the report, take appropriate remedial action, reward or possibly threaten the complainant (Mesmer-Magnus and Viswesvaran, 2005; Miceli et al., 2008). Research has also shown that what may happen after whistle-blowing occurs, is likely to influence the willingness of others to blow the whistle (Miceli and Near, 1992b; Casal and Zalkind, 1995; Miceli et al., 2008). The potential whistle-blower will first assess the cost of reporting, and this assessment may determine whether the individual will whistle-blow or not.

Prior research has shown that retaliation may include the undermining of the reporting process, isolation, defamation, undue pressure, alienation, loss of job, harassment and other discriminatory acts (Parmerlee et al., 1982; Miceli and Near, 1992b; Near and Miceli, 1995). Mesmer-Magnus and Viswesvaran (2005) highlighted key motivations for retaliatory acts to include the need to silence and discredit the whistle-blower and prevent public disclosure of the wrongdoing.

There are also positive and negative consequences to society, the organization (e.g. the audit firm) and the accounting profession as a result of whistle-blowing. To the audit firm and the profession, there are negative consequences associated with the discovery of wrongdoing, which has been reported internally, and was not satisfactorily resolved. This may cause the public to lose confidence and respect for the firm and the profession. In addition, any resulting financial losses to the public can further harm the

credibility and confidence in the capital markets (e.g. the case of Enron and Arthur Andersen). However, whistle-blowing can also have positive social consequences, where the public is able to see that the profession and the audit firms have implemented adequate reporting mechanisms to regulate themselves. Thus, this could lead to greater transparency, accountability and trust in the profession.

3.9 Summary

The study of whistle-blowing intentions is central to understanding the ethical decision-making process of auditors. Intentions have been argued to be a very good predictor of actual behaviour (Ajzen, 1991; Fishbein and Ajzen, 1975). Furthermore, previous studies have examined ethical intentions as the dependent variable in most ethical decision-making models. For example, Goles, White, Beebe, Dorantes and Hewitt (2006) examined the effects of perceived moral intensity and perceptions of an ethical problem on ethical intentions. Singhapakdi, Vitell and Franke (1999) also investigated the influence of several contextual (organization-based factors and moral intensity) and individual (demographics and moral philosophy) variables on behavioural (ethical) intentions. Given this focus, this thesis will examine external auditors' whistle-blowing intentions (i.e. the likelihood of reporting wrongdoing committed by audit staff).

The above review of the literature shows that the concept of whistle-blowing is important to the external auditor. More importantly, prior studies of whistle-blowing have highlighted some important findings for the auditing profession. Specifically, the literature shows that auditors seem to demonstrate low whistle-blowing intentions and a general reluctance to report to external channels (Kaplan and Whitecotton, 2001). The above review also highlighted that there are many factors that can influence an external auditor's whistle-blowing intentions.

There has been a paucity of research that seeks to utilise an integrated approach to study whistle-blowing among external auditors. This study examines the influence of team, contextual and individual factors on auditors' whistle-blowing intentions. Group dynamics (e.g. team norms and group cohesion) seem to have been ignored in the whistle-blowing literature. There is also a scant body of research concerning the combined and separate effects of team and individual factors on the intentions to behave ethically. In addition, limited research has been conducted to determine the importance of team or individual factors (or both) in understanding whistle-blowing among external auditors. Finally, the effects of moral approval (i.e. desired moral approbation) have not been fully recognized as a determinant of ethical intentions (whistle-blowing) among auditors. Thus, the thesis now moves on to the next chapter (chapter 4), which presents the conceptual model. Limited research has been done on investigating whistle-blowing among practising external auditors. As previously mentioned, this model will seek to explain whistle-blowing intentions (rather than actual behaviour).

CHAPTER 4: DEVELOPMENT OF CONCEPTUAL MODEL AND HYPOTHESES FORMULATION[7]

4.0 Introduction

This chapter presents a conceptual model of whistle-blowing intentions among external auditors in audit firms and draws together the themes from chapters 2 and 3. The proposed model was derived, in part, from existing models of ethical decision-making and whistle-blowing. The structure of the chapter is as follows. The first section explains the background to the study. Section two highlights the importance of whistle-blowing to auditing. Section three briefly reviews existing whistle-blowing models, while section four provides the theoretical underpinnings that influence whistle-blowing intentions in the context of auditing based on moral, social justice and institutional theories. Section five discusses the proposed conceptual model of whistle-blowing among audit practitioners and the hypothesized relationships depicted in the current model and offers theoretical and empirical justification for the inclusion of the variables and the relationships established in the model. The final section concludes the chapter.

4.1 Background

Whistle-blowing has become an important monitoring mechanism in the wake of many corporate scandals involving accounting firms. The accounting profession and other interested regulatory bodies are now calling for whistle-blowing to be a prominent part of the organizational culture (Sarbanes and Oxley, 2002). Although the professional codes of ethics stated the need for audit members to approach their work with integrity

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[7] A paper was drawn from this chapter, which presents the conceptual model. The paper was presented at the Critical Perspectives on Accounting 2008 Conference held at Baruch College, City University of New York, USA.

and to report any wrongdoing, both actual and suspicious, the recent corporate scandals have questioned the soundness of the professional codes of conducts in preventing such scandals and protecting public interest. Hence, the apparent failure to serve public interest might be due to the widespread reluctance by audit staff to report on colleagues who commit wrongdoing or questionable acts (see Kaplan and Whitecotton, 2001; Finn and Lampe, 1992). This is partly due to the shortcomings of the current codes of ethics, which neither encourage nor guide audit practitioners on how to blow the whistle in situations where they have reported to more senior levels within the audit firm and/or the client's audit committee, but where no action is taken to rectify the reported wrongdoing.

Due to the uniqueness of auditor-client relationships where audit staff have statutory access and accumulated knowledge of the client's financial and business affairs and the importance placed by the code to address such auditor-client relationships, it is desirable that the code clearly dictates what should be done in such cases, if the profession is to render its obligations towards both its members and to the wider public.[8] Arguably, no code can dictate what should be done in each case (Cowton, 2009). Thus, there is a need to move beyond the code and look at other measures, such as whistle-blowing, to prevent further scandals and protect public interest.

The importance for whistle-blowing becomes paramount when there is collusion between the client management and the audit senior partner, such as in the

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[8] Freidson (1986) argues that due to the limitations of a well-developed body of theoretical knowledge of auditing practice, the profession becomes vulnerable to political and social interference. In other words, auditing practice is very much influenced by the factors in the environment. Hence, the existence, enforcement and regular assessment and updates of the professional code of conducts are deemed very important to guide and govern members' behaviour in maintaining an independent attitude of mind and avoiding situations which would lead to impairment of objectivity. However, the code stops short from addressing situations that may cause audit practitioners to have personal biases towards others during their professional work and, as a result, he or she may become reluctant to form an independent opinion about any particular situation, he or she is involved in and may not act with due care and diligence.

case of Enron where there was reluctance to blow the whistle by the audit staff, despite their knowledge about the client's business, its obligations and its financial affairs. Audit staff should have a moral obligation to protect the public's interest in the face of perceived justice violations.[9] The external audit promotes the view that public interest is protected by making corporate managers and their companies accountable. Some have argued that, *de facto*, since accounting firms are in constant pursuit of profit making, audit staff are indoctrinated to satisfy and yield to clients and ignore the public's interests (Hanlon, 1994). Moreover, significant time budget pressures may be exerted on audit staff, and as a result, some firms have used improper auditing practices, including falsifying audit working papers (Willett and Page, 1996; Sikka, 2008).

Sikka (2008) argues that accounting firms have shown greater tendencies to break audit standards and other regulations, and support their clients in issuing fraudulent financial statements. This raises the need for reluctant audit staff to blow the whistle on colleagues who commit wrongdoing for the interests of both public as well as the profession. The subsequent public disclosure of an issue that ought to have been reported and rectified then, could be potentially damaging later to the audit firm and the profession as a whole, where public confidence needs to be restored, as was seen in the demise of Arthur Andersen.

To enhance the public interest role, the whistle-blowing mechanism has been argued to be particularly important in the auditing profession (Arnold and Ponemon, 1991). Some researchers (Hooks et al., 1994; Finn, 1995) have responded and proposed

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[9] The Financial Reporting Council (FRC) and the PIDA in the UK, the Sarbanes-Oxley Act in the USA and most of other regulations are intended to serve the public's interest and can be viewed as regulatory responses to the major incidents (like Enron), in recent times, that have undermined public interest (Helliar and Bebbington, 2004). The current codes of professional conduct also cover this issue and require accountants to disclose confidential (privileged) information to third parties, when not legally obliged to do so, if the disclosure can be justified as acting in the public's interest.

whistle-blowing models, but these models failed to capture all of the important factors critical to the context of external auditing. In addition, these models were developed prior to the Enron debacle. Given that the world is dynamic, with practices and processes constantly evolving and the emergence of a significant body of research subsequent to the development of these models, it suggests that prior models need to be revised and extended for a post-Enron era.

Previous studies identified individual factors, contextual variables and the severity, type of wrongdoing and potential retaliation (Miceli and Near, 1988; Hooks et al., 1994; Finn, 1995; King, 1997; Sims and Keenan, 1998; Mesmer-Magnus and Viswesvaran, 2005) as factors associated with whistle-blowing intention, but neglected to consider perceived organizational support, moral intensity and team-based factors, the latter being important since audit practitioners often work in teams within the constructs of their organizations. Indeed, Louwers, Ponemon and Radtke (1997) suggest that future accounting ethics research should focus on "the development of a model specific to the accounting profession" (p. 209). Hence, the proposed model takes into account those factors guided by Kant's and Rawls's autonomous and equal liberty theories that are based on moral duty to act in the public's interest and prevent harm, which is the cornerstone of the audit profession. In addition, the thesis considers the literature on behavioural psychology (Ajzen, 1991; Graham, 1986), isomorphic notions of institutional theory and auditing to construct the model.

The proposed model consists of key individual-level antecedents (attitudes toward whistle-blowing, perceived behavioural control, desired moral approbation, independence commitment, personal responsibility for reporting and personal cost of reporting) that may influence whistle-blowing intentions among audit practitioners, with perceived organizational support, team norms, group cohesion and perceived

moral intensity components, being proposed to have moderating effects on the propensity to whistle-blow (See Figure 9). Therefore, this thesis not only contributes to the general literature on whistle-blowing but also to the auditing and ethics literature by presenting a model explaining how several factors (individual, team, issue-contingent and organizational) may influence the behaviour of external auditors.

4.2 Importance of whistle-blowing to auditing

This section draws together the key issues on whistle-blowing within the external audit environment. Audit practitioners who have exhausted the normal professional procedures to correct wrongdoing are often faced with the moral dilemma on whether or not to report the observed questionable act performed by other audit staff. These can include acts such as covering up irregularities in a client's financial statements, false sign off and yielding to client pressure. As previously mentioned in chapter 3, the auditing profession is considered unique, with its legal, ethical and professional restrictions and loyalties to the client and public (e.g. Mitschow and Langford, 2000; Brennan and Kelly, 2007).

It can be argued that whistle-blowing for audit practitioners can include the reporting of unethical acts committed by others to any reporting channels (internal or external), anonymous or otherwise. Thus, whistle-blowing in an audit context is defined as the audit practitioner's voluntary act, over and above the profession's standard requirements, to report any discovered unethical acts committed by other staff within the organization to any party (internal or external) having the potential to correct the wrongdoing.[10] Whistle-blowing may be influenced by personal, team, situational and organizational factors (Hooks et al., 1994; Brennan and Kelly, 2007). Prior research has

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[10] The literature on whistle-blowing was reviewed in Chapter 3, where a definition of whistle-blowing is proposed. This definition, which has been adopted throughout this thesis, has again been revisited in this chapter to show a link with the conceptual model.

found that audit staff tended to be reluctant to whistle-blow on colleagues (Finn and Lampe, 1992; Kaplan, 1995; Kaplan and Whitecotton, 2001). This has led Chung et al. (2004, p.3) to argue that that there is limited research that identified the factors that are likely to encourage whistle-blowing in an auditing context.

4.3 Existing whistle-blowing models

This section briefly reviews prior relevant whistle-blowing models (as explained fully in chapter 3) and their importance to the proposed model. Finn and Lampe (1992) hypothesized that individual and situational factors (organizational pressure and referent others) influence the whistle-blowing decision. Kaplan and Whitecotton (2001) concluded that organizational culture and audit firm norms may influence the beliefs of the acceptability of whistle-blowing. This lends further support for the possible use of organizational support and group norms in future models.

Prior research has shown that individual, situational and organization factors influence whistle-blowing (e.g. Graham, 1986; Miceli and Near, 1992a; Hooks et al., 1994; Finn, 1995; Near and Miceli, 1995). Schultz et al.'s (1993) model proposed that an individual's reporting intention is influenced by perceived seriousness of the act, perceived personal responsibility to report and personal cost of report. Miceli and Near (1992b) proposed a model that looked at the influence of personal and situational variables, cognitive assessments of reactions from members of the organization on the whistle-blowing decision-making process. They concluded that the interactions of individual, situational and organizational variables can encourage whistle-blowing.

Hooks et al. (1994) proposed a model of whistle-blowing that incorporated factors such as personal values, education, ethical principles, group norms, codes of conduct, organizational tenure and position. Finn (1995) proposed a model of whistle-blowing, which highlights the prior actions and reactions that are considered by the

whistle-blower. Near and Miceli's (1995) model proposed that effective whistle-blowing may be influenced by individual and organizational factors as well as characteristics of the wrongdoing. Table 3 presents a summary of prior studies discussed in both chapters 3 and 4, including their limitations (see Panel A), suggestions to overcome those limitations (see Panel B) and the proposed model (see Panel C).

In short, studies on whistle-blowing intentions have indeed received much empirical attention in organizations. Chiu (2002) acknowledged that although individual-level variables have been found to be important determinants of whistle-blowing intentions, situational variables have a central place in this area of study and "more research is needed to determine the relative influence of individual versus situational factors on whistle-blowing" (p. 586). Most studies that have explored whistle-blowing within the audit environment have failed to research the likely influence of both team-based and perceived organizational support variables on whistle-blowing intentions.

Table 3: Summary of prior studies on whistle-blowing, shortcomings and suggestions for improvement

Panel A: Review of the studies		
Study	**Findings**	**Limitations/recommendations**
Graham (1986)	Focus on individuals within organization. Theoretical essay: Proposed that an individual's intention to report will be influenced by the perceived seriousness of the issue, personal responsibility to report and assessment of personal costs of reporting.	View whistle-blowing as principled organizational dissent, i.e. is potentially dysfunctional for the organization. Consequently neglected other factors such as moral intensity and team (e.g. cohesion and norms).
Finn & Lampe (1992)	Focus: individual level within organizations. Examined whistle-blowing, the individual's ethical judgment and issue-contingent and situational factors. Findings: A positive relationship exists between moral judgment and whistle-blowing, but moderated by issue-contingent and situational factors in the workplace; practising auditors were less supportive of whistle-blowing behaviour than auditing students.	Did not consider perceived organizational support as well as the team factors: cohesion and norms. Partially considered moral intensity constructs. Independence commitment and personal cost were not considered.
Miceli & Near (1992b)	Proposed that the inclusion of interaction effects of individual, situational and organizational factors can encourage whistle-blowing behaviour.	It is a general process model, designed for organizations; it does not include audit firms' specifics.
Schultz et al. (1993)	Cross cultural study: measuring the likelihood of Norwegian, French and US managers and professionals reporting questionable acts: Focused on individuals within organization. Findings: Reporting intentions may be influenced by individual's assessment of perceived seriousness, personal cost of reporting and attribution of personal responsibility of reporting.	Did not consider perceived organizational support as well as the team factors: cohesion and norms. Partially considered moral intensity constructs. Also did not consider independence commitment and perceived behavioural control.
Hooks et al. (1994)	Proposed a whistle-blowing model that incorporates factors such as personal values, ethical principles, group norms, codes of conduct, education, organizational stature, and tenure status. Argued that whistle-blowing is an important internal control for improving internal control systems and assisting management and the external auditors to evaluate the control environment.	Incorporated group and other organizational factors but neglected the moral intensity factor. Model focused on internal control and external audit to prevent and detect financial statement fraud.

Study	Findings	Limitations/recommendations
Finn (1995)	Presented a five stage model of whistle-blowing, which was based on Rest's (1986) and Miceli and Near's (1992b) models, where at each stage, the observer assesses prior actions and reactions of organizational members. Findings: seriousness of the issue influences willingness to whistle-blow, thus suggesting that materiality is important.	Did not consider perceived organizational support as well as the team factors: cohesion and norms. Partially considered moral intensity constructs. Also did not consider independence commitment, personal responsibility for reporting and personal cost of reporting.
Near & Miceli (1995)	Focus: individuals within organizations Suggest that whistle-blowing is influenced by personal factor via (the individual characteristics of the whistle-blower, complaint recipient and wrongdoer) and the characteristics of the wrongdoing and the organization.	Did not consider team-based and moral intensity factors.
Kaplan & Whitecotton (2001)	Findings: strong support for the influence of personal costs and personal responsibility to report on auditors' intentions to report.	Given that support was not found for perceived seriousness, the authors recommended the incorporation of moral intensity.
Curtis (2006)	Focus: individuals within organizations, using students. Findings: Individual's intentions to report questionable behaviour are related to higher perceived seriousness and personal responsibility, and lower personal cost.	Non-consideration of moral intensity and team-based variables. Also supports the use of personal responsibility and personal costs of reporting as important factors within the audit profession.
Taylor & Curtis (2007)	Measured whistle-blowing intentions, commitment (via professional, firm and colleague) and moral intensity among a Big 4 firm's audit seniors. Found support for professional commitment, moral intensity and reporting intentions.	Supports the use of moral intensity and a form of commitment (maybe in the form of independence) in future models.
Brennan & Kelly (2007)	Surveyed 100 final year students (trainee audit practitioners) on their confidence in the internal and external reporting mechanisms in their firms and the likelihood of challenging an audit partner's inappropriate decision, and the impact of legal protection on their willingness to whistle-blow. Finding: trainee auditors will be more likely to whistle blow and were more confident when there are adequate structures for reporting wrongdoing and that their career prospects will not be negatively affected; Also the trainees are more likely to challenge the audit partner's inappropriate response to wrongdoing.	Did not consider team-based and moral intensity factors.

Panel B: Suggestions from literature to remedy limitations in prior studies

	Remedies	Limitations
Kaplan & Whitecotton (2001) Cohen & Martinov-Bennie (2006) and Jones et al. (2003)	Suggested that the inclusion of moral intensity variables (i.e. Jones' 1991) in the current whistle-blowing model will help enhance the model.	These studies recognize the importance of moral intensity in addition to individual factors. However, they did not consider other organizational factor such as organizational support as well as it did not consider the team-based factor.
Arnold & Ponemon (1991)	Suggest that whistle-blowing intentions are particularly important in the auditing profession.	This study recognizes the importance of whistle-blowing to the auditing profession, but stopped short of proposing any model. Specifically considers the main factors influencing whistle-blowing intentions such as audit-team-based.
Chiu (2002)	Posits that in addition to individual-level variables as important determinant of whistle-blowing intentions, situational variables also have a central place in this area of study.	Did not propose a model that captures team-based, perceived organizational support and moral intensity variables.

Panel C: The Current Study

Current Study	Proposes a synthesised model drawn upon behavioural psychology that examines the impact of several individual-level (attitudes toward whistle-blowing, perceived behavioural control, desired moral approbation, personal responsibility for reporting independence commitment and personal cost of reporting) variables on whistle-blowing intentions) moderated by isomorphic factors (perceived organizational support and team norms and group cohesion) and issue-specific (moral intensity).

Since actual whistle-blowing is difficult to predict, the literature tends to use whistle-blowing intentions, defined as "the individual's probability of actually engaging in whistle-blowing behaviour" (Chiu, 2002, p. 582), as a proxy for the actual act. This is based on the perspective of the theory of planned behaviour (TPB)[11] whereby an individual's intention is influenced by his or her attitudes, subjective norms and perceived behavioural control, and intention is considered to be a strong predictor of actual behaviour (Ajzen, 1991). Since the actual behaviour of whistle-blowing may be difficult to observe at the time of occurrence, researchers have no alternatives but to draw conclusions on the phenomenon using reporting intentions (Mesmer-Magnus and Viswesvaran, 2005). The following section discusses the theoretical framework, which is adopted in building the conceptual model of whistle-blowing intentions.

4.4 Theoretical framework

4.4.1 Theoretical underpinnings of the model

Researchers in whistle-blowing have used power theories such as resource dependency, value congruence and minority influence to explain power shifts in the relationship between the whistle-blower and the organization. For example, Miceli and Near (1992b) argued that "the criticality of the member's dependence on the organization and the availability of alternative sources of support are determinants of the extent to which dependence exists and will influence the member's action" (p. 67). They further argue that the dependency dimension of power theory may limit organizational

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[11] In the accounting literature, one can find similar arguments to the behavioural intentions view. For example, in defining auditor independence, Watts and Zimmerman (1986) regard independence as the probability or likelihood expected by the market for the auditor to report honestly in the event of any observed breaches of contract. DeAngelo (1981a) defines it as the probability of an auditor reporting a breach in the financial statements when discovered. Similarly, Moizer (1985) views auditor independence from both the perspective of a rational economic person and the perceptions of users regarding auditor objectivity as: "…an individual who will (and is expected to) disclose all the errors and omissions that have been discovered and which affect the view presented by the accounts" (p. 33).

members' opportunities (i.e. current rewards and future employment) if they go against the organization, but observed mixed empirical support for the theory in the prior literature. Hence, it is argued that there may not be a single theory that can serve to explain the whistle-blowing phenomenon among auditors, who must be objective to fulfil their societal duty by holding corporate management accountable for the resources entrusted to them.

Thus, a more comprehensive whistle-blowing theoretical framework is needed to incorporate the specific nature of audit practitioners' work, involving a duty towards the public, typically working within teams in an organizational setting. Since audit practitioners are expected to act as society's watchdogs (Cullen, 1978; Porter, 1992), and should put public interest over self-interest (Sikka et al., 1989; Perks, 1993), their role go beyond the judicial duties and obligations that society expects them to perform (Hudaib, 2003). Thus, it is argued that social justice and institutional theories should be considered in developing the whistle-blowing intentions model for audit practitioners, since they operate within a set of specific rules and codes that may limit their intentions to blow the whistle on wrongdoing. With this in mind, the chapter explores moral and justice theories (Kant, 1964; Rawls, 1971), and institutional theory informed by DiMaggio and Powell (1983) to help explain whistle-blowing intentions at the individual, organizational and societal levels. The next subsections discuss social justice and institutional theories.

4.4.2 Moral and justice theories

Kant (1964) argued that ethics and morals are duty based, whereby one has a duty to engage or not engage in the behaviour because it is either inherently right or wrong. Kant (1964) advanced this deontological perspective as guiding the socially acceptable moral norms of society. Persons are autonomous, equally free in participating in moral

actions and rationally capable of acting on the basis of principles that could be impartially endorsed by all other persons regardless of their inclinations and feelings. For example, Kant's theory assumes that it is a moral duty to tell the truth and report any wrongdoing by virtue of being rational and capable of distinguishing duty and obligation from inclination and desire. However, some researchers argued that whistle-blowing on illegal and questionable acts is voluntary and not duty based (Jubb, 1999). In contrast, De George (2006) perceived whistle-blowing as being morally driven. However, Jubb (2000) argued that "a (good) motive is not a condition for whistle-blowing, though it is highly pertinent to its justification" (p. 158).

Based on both arguments, it would appear that audit practitioners have a duty to act in the public interest and prevent harm, as prescribed in their codes of conducts (see AICPA's 2007 *Code of Professional Conduct*). It must be recognised that the decision to act ethically may also take into consideration the potential personal costs of whistle-blowing such as the loss of one's licence or income due to the retaliation of a superior or audit client for reporting his or her actions. Hence, according to this theory, it seems that any ethical decision such as whistle-blowing on wrongdoing should not only consider the potential harm incurred from reporting versus the potential harm incurred from not reporting, but also the extent of serving public interest and honouring public trust by demonstrating a commitment to professionalism. Thus, this ethical decision must not only be based on the consequences of the action, but also on the basis of the inherent right and wrong of the behaviour.

Besides moral duty as a basis for whistle-blowing, the principles of equal liberty and social justice should also be considered. Rawls (1971) argued that justice is seen as fairness. Following Kant's theory, Rawls argues that human beings have the ability to choose their own ends. Thus, the state should respect the citizen's autonomy and allow

them to live as they choose. Rawls (1971) argues against utilitarianism, whereby he felt that the safeguarding of the individual's liberties should never be given up for the greater 'good' of others. Rawls (1971) offers two concepts that the individual must have to create impartiality to provide fairness: 'original position' and 'veil of ignorance'. Under the original position viewpoint, people imagine themselves as being free and equal individuals who jointly agree upon and commit to principles of social and political justice. The veil of ignorance would cause the individual to develop a sense of ethics that would be fair to everyone due to lack of knowledge of social systems, religious beliefs or conception of the good life.

Thus, the individual actor will have two basic principles of justice: the first principle is where the individual grants everyone the same level of liberty; and the second principle is where the individual arranges social and economic opportunities to all (the advantaged and the least advantaged). Rawls identifies these principles as the principle of equal liberty, the principle of fair equality of opportunity and the difference principle. Following Rawls (1971) notion of justice, decision makers are expected to act with fairness, equity and impartiality and, in turn, the organization should administer its rules in the same vein. Therefore, this researcher argues that whistle-blowing in the audit context should be a voluntary act within the realm of free speech and the individual's perception of justice and fairness in society. For example, Sherron Watkins of Enron disclosed the accounting irregularity with a justice perception about what is fair to stakeholders such as shareholders and employees, i.e. principle of equal liberty in and for society (Lucas and Koerwer, 2004).

4.4.3 Institutional theory

Although moral and social justice may positively influence audit practitioners' whistle-blowing intentions, an institutionalised process towards profit orientation may hinder

118

practitioners' moral obligations towards society. Institutional theory proposes that an organization is shaped by wider cultural, social and symbolic elements that comprise its environment (DiMaggio and Powell, 1983). To gain legitimacy, organizations implement mechanisms and structures to signal to all what is the expected and acceptable behaviour. Organizations operate within a framework of norms, values and acceptable economic behaviour. DiMaggio and Powell (1983) argue that conformity to socially acceptable norms will contribute positively to the organization's survival. Thus, institutional theory can be used to justify compliant behaviour.

DiMaggio and Powell (1983) suggest three isomorphisms[12] that affect organizations. The first, coercive isomorphism is the regulatory institution (e.g. the State) that imposes patterns on the organization. For example, governments require institutions to have mechanisms such as effective corporate governance (CG) systems and audit committees (AC) in place to ensure that organizations operate in an acceptable manner and are properly audited by audit firms in the public interest. Secondly, mimetic isomorphism is where organizations adopt the prescribed acceptable behaviour adopted by similar organizations. Thirdly, normative isomorphism is where organizations are professionalised by prescribed patterns such as norms established by training and career paths. The institutionalised activities could include management's norms, corporate culture, and societal expectations. In organizations, the audit committee is an example of the structure as well as institutionalised activities i.e. CG quality and AC effectiveness. Specifically, audit firms have set up ethics committees to signal and legitimise certain ethical behaviours.

The argument here is that the contribution of moral, justice and institutional theories are important to the understanding of whistle-blowing behaviour among

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[12] Isomorphism refers to "the constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions" (DiMaggio and Powell, 1983, p.149).

auditors. It may be argued that individual practitioner's perception of free speech may also be affected by coercive institutions where the audit firm implements rules and procedures to create compliance, hierarchy, routines and some form of loyalty to the organization. However, De George (2006) argued that there is no duty of loyalty that should restrict whistle-blowing. Whistle-blowing is about bringing change and acting in the public interest where unfair practices are identified. In the audit profession, there are still standards and rules that restrict client disclosure on wrongdoing. Further, it is widely held that the reporting on an audit staff's violation may be at odds with the goals of the firm to be more profit oriented and to retain the client. Thus, this rational act of reporting wrongdoing in the public interest is within the remit of all auditors, as informed by Rawls' principles of liberty and accountability towards society.

4.5 Propositions (hypotheses) based on the model

4.5.1 Background to the model

Although the motivation to blow the whistle might be contingent on audit practitioners' personal goals and diverse personality traits, several other individual factors might encourage and promote whistle-blowing intentions. Previous models of ethical decision-making or whistle-blowing have used individual characteristics as antecedents (Trevino, 1986; Ajzen, 1991; Graham, 1986; Schultz et al., 1993; Kaplan, 1995; Near and Miceli, 1995; Kaplan and Whitecotton, 2001) and potential moderators (Hooks et al., 1994; Lampe and Finn, 1992). For example, Trevino's (1986) model proposed that individual characteristics such as moral reasoning, locus of control, ego strength, field dependence and education, influence the ethical decision-making process. Park and Blenkinsopp (2009) argue that the determination of the factors that are likely to motivate an individual's behavioural intentions will assist organizational leaders to find ways of improving ethical behaviour.

Based on this researcher's understanding of both ethical arguments by Kant and Rawls, Figure 9 highlights six components of individual factors (viz. attitudes toward whistle-blowing, perceived behavioural control, desired moral approbation, independence commitment, personal responsibility for reporting and personal cost of reporting), that serve as antecedents to whistle-blowing intentions. These six antecedents would achieve Kant and Rawls' views on ethical actors as being rational and autonomous and enjoying equal freedom within the context of audit staff's whistle-blowing intentions. Furthermore, the first two adopted factors (attitudes toward whistle-blowing and perceived behavioural control) are drawn from Ajzen (1991)'s theory of planned behaviour which evolved from the theory of reasoned action, developed by Fishbein and Ajzen (1975), where behavioural intentions are based on two concepts: the individual's attitudes toward behaviour and subjective norms.[13] Later, Ajzen (1991) added a third concept, perceived behavioural control, to the model (Figure 10, Illustration A). However, for the purposes of this research, the theory of planned behaviour is modified to fit the arguments for whistle-blowing in an audit context. Figure 10 (Illustration B) depicts this researcher's view on how the intention to engage in the behaviour is influenced by the six considerations.

Figure 9 also identifies team-based, perceived organizational support and issue-specific variables that may create significant pressures on individual characteristics and are likely to actually encourage individuals to blow the whistle. Even though these six individual-led antecedents and four moderators (team norms, group cohesion, perceived organizational support and issue-specific – moral intensity variables) have often been

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[13] Subjective norms refer to the individual's belief as to how important others such as peers and family are likely to support the behaviour, directly influencing behavioural intentions. They are the product of the individual's normative beliefs and motivations to meet the expectations of important others (Ajzen, 1991). However, this construct was replaced with another relevant component such as desired moral approbation.

recognised in the literature, they have not been synthesised as interrelated blocks. The review, therefore, aims to clarify the potential impact of these factors on whistle-blowing intentions in the audit profession. Figure 9 illustrates the building blocks of the review and the following subsections discuss the proposed relationships as depicted in the conceptual model.

Figure 9: Conceptual model of whistle-blowing intentions among external auditors[14]

a   adopted from Ajzen (1991);
b   adopted from Jones and Ryan (1997);
c   adopted from Gendron et al. (2006);
d   adopted from Graham (1986) and Schultz et al. (1993);
e   adopted from De Jong et al. (2005);
f   adopted from Price and Mueller (1986) and Schminke and Wells (1999);
g   adopted from Jones (1991) moral intensity;
h   adopted from Eisenberger et al. (1990);
i   adopted from Park and Blenkinsopp (2009)

The rest of the model is based on the review and understanding of how the external audit works.

Figure 10: The theory of planned behaviour (TPB) and the modified model

Illustration A

Source: Ajzen (1991)

Illustration B
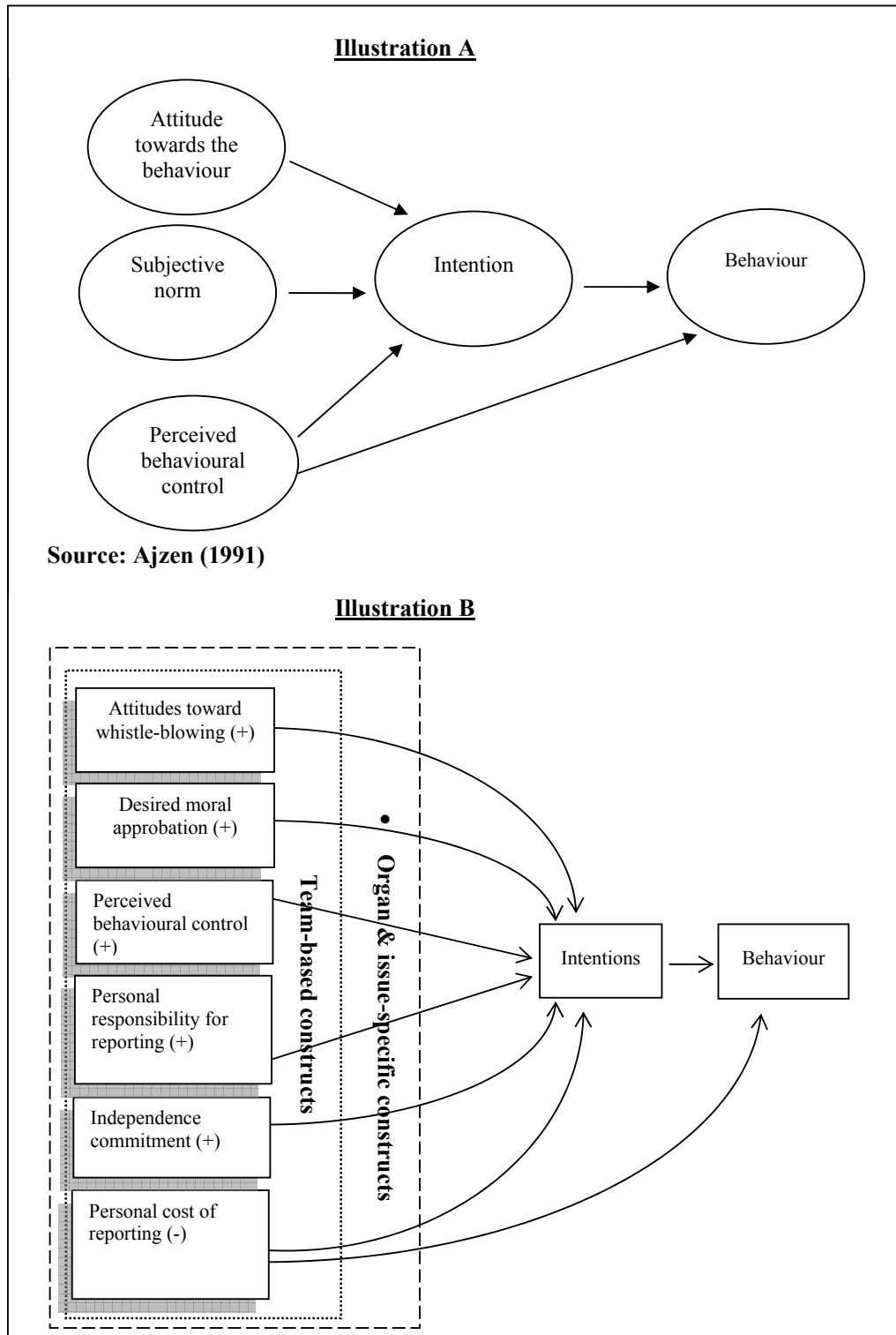
4.5.1.1 Attitudes toward whistle-blowing and whistle-blowing intentions

Previous studies using social psychological theories of decision-making have indicate that an individual's decision to perform a given behavioural action may be influenced heavily by his or her attitude toward the behaviour (e.g. Fishbein and Ajzen, 1975; Turrisi and Jaccard, 1992). The theory of planned behaviour posits that an individual's behaviour is influenced by his or her personal motivation towards the adoption of the behaviour (i.e. intention to behave). An attitude is an individual's assessment of the extent of approval or disapproval of a specific behaviour. Attitudes toward the behaviour are the sum of the individual's beliefs of the behavioural consequences and their evaluation of those consequences. Attitudes will have an independent and direct effect on whistle-blowing intentions, by assessing how favourable or unfavourable an individual will be to whistle-blowing.

Within the ethical decision-making literature, attitudes toward ethical behaviour have emerged as a significant predictor of ethical intentions and actual behaviour. Flannery and May (2000) found that a manager's environmental ethical decision intention regarding wastewater treatment was largely dependent on his or her attitudes towards the environmental behaviour. Flannery and May (2000) suggest that this finding is consistent with numerous and related studies which found that "attitudes consistently contributed to explained variance in ethical intentions and/or behaviors" (p. 656). Moreover, Fang (2006) found that Taiwanese employees' attitudes toward ethical behaviour strongly predicted their intentions to behave ethically in the face of ethical dilemmas. Bobek and Hatfield (2003) found that attitudes significantly predicted ethical behaviour regarding tax compliance. Park and Blenkinsopp (2009) found that attitudes had significant positive main effects on whistle-blowing intentions among South Korean police officers.

In the accounting and auditing ethics domain, very few studies have used the theory of planned behaviour to explain ethical behaviour. Gibson and Frakes (1997) applied the theory of reasoned action to examine unethical decision-making among CPAs, and found that members were unwilling to report unethical action. With regards to whistle-blowing in the audit context, attitudes may be linked to the individual's personal traits, ethical values and thinking which are required by the profession's codes. Gibson and Frakes (1997, p.169) argued that:

> Accountants appear to be unwilling to accurately report either unethical behaviour or intention, particularly in situations where there is no question as to the unacceptability of the action or the potential penalty as presented in the AICPA code of professional conduct. (p. 169)

This may be due to the limitation of the professional code of conduct which does not consider whistle-blowing as being part of audit practitioners' professional duty of care.

Buchan (2005) further extended Gibson and Frakes' (1997) work by including several other variables such as moral sensitivity and ethical climate to investigate ethical intentions by the accounting profession in the US. Buchan (2005) found support for attitudes influencing ethical intentions among accountants, but no support was found for moral sensitivity and ethical climate. Empirically, the concept of attitudes toward the behaviour has been shown to have a positive relationship with ethical and whistle-blowing intentions (e.g. Carpenter and Reimers, 2005; Park and Blenkinsopp, 2009). Hence, the first hypothesis is stated as follows:

Hypothesis 1a: Attitudes toward whistle-blowing will have a positive, direct effect on whistle-blowing intentions among external auditors.

4.5.1.2 Desired moral approbation and whistle-blowing intentions

Prior research suggests found that social influences (such as subjective norms and social consensus) predict behavioural intentions (e.g. Ajzen, 1991; Jones, 1991; Gibson

and Frakes, 1997; Buchan, 2005, Park and Blenkinsopp, 2009). Within the audit literature, other models propose social influences as affecting the reporting intentions of auditors (Finn and Lampe, 1992; Hooks et al., 1994).

A significant contribution of the model of whistle-blowing that is being proposed, is the inclusion of a relatively new and under-researched construct in the ethical decision making literature – desired moral approbation. Desired moral approbation refers to "the amount of approval that individuals require from *themselves* or *others* (emphasis added) in order to proceed with moral actions without discomfort" (Ryan and Riordan, 2000, p. 449; Jones and Ryan, 1997). In theory, desired moral approbation has two dimensions: moral approval from oneself and moral approval from others. Moral approval from oneself is concerned with self approval without considering others' opinions when engaging in ethical or unethical behaviour, whereas moral approval from others is concerned with the desire to obtain approval from others. Ryan and Ciavarella (2002) argued that individuals experience varied levels of desired moral approbation, which may be high for some persons and low for others, and may require self-approval, approval from others, or both. Ryan and Riordan (2000) have found support for the existence of this individual difference variable (desired moral approbation), which may help to explain an individual's inconsistency in making moral judgements.

It is important to understand how moral approbation from others relates to the auditing and accounting profession. Aristotle (see Rackam, 1934) contended that agents actively seek the approval (or disapproval) of members of their community as a means of understanding ethical behaviour. In developmental psychology, the development of a 'moral self' is dependent on the need to obtain approval from one's significant others (or the need to avoid disapproval from these referent others) (Epstein, 1973). May

(1992) argues that individuals' attitudes and moral values are influenced and shaped by their referent groups. Williams (2004) added that professionals such as accountants are responsible for their behaviour and that of their co-members because "every member of a profession must be sensitive to the potential harms that might result from the group adopting certain values and attitudes" (p. 1000). Consequently, it is logical to assume that auditors are likely to make judgements and decisions that are subject to the approval of referent others, especially those in their profession or organization.

Desired moral approbation from others is important as it concerns the notion that auditors and accountants operate within a profession and an organization. This group of "agents" are likely to make their decisions regarding an ethical action on the basis of referent others (i.e. those with whom they work either in the profession or organization). Prior studies (Jones and Ryan, 1997) have highlighted the possible link between level of moral approbation and ethical intentions and behaviour, and the need to empirically test such a link.

The moral approbation construct has received limited empirical attention to date in terms of its empirical form (i.e. measurement structure) and its ability to influence moral judgements or intentions (Ryan and Riordan, 2000). To the best of this researcher's knowledge, no published study has examined the influence of desired moral approbation from others and self on whistle-blowing intentions of auditors. Hence, this construct is incorporated in the proposed conceptual model and the next hypothesis is as follows:

Hypothesis 1b: *Desired moral approbation from others and from self will have a positive, direct effect on whistle-blowing intentions among external auditors.*

4.5.1.3 Perceived behavioural control and whistle-blowing intentions

A relevant factor in Ajzen's theory of planned behaviour is perceived behavioural control. Perceived behavioural control is the individual's perception of the level of ease or difficulty it would take to perform a specific behaviour (e.g. whistle-blowing on a colleague who signed off a clean audit report on misleading financial statements). Specifically, an individual's control beliefs are contingent on the presence or absence of opportunities and obstacles. According to the theory of planned behaviour, the greater the individual's perceived behavioural control, the more likely will be his or her intention to perform the behaviour in question (Ajzen, 1991).

Ajzen (1991) argued that perceived behavioural control is conceptually similar to Bandura's (1977) concept of self-efficacy. Bandura (1997) argued that self-efficacy refers to a person's expectation of whether the specific behaviour can be successfully performed. In the context of ethical decision-making, Beu et al. (2003) hypothesized the influence of perceived self-efficacy on ethical intentions among students. They argue that persons who have high self-efficacy tend to display high self-esteem and competence when faced with challenging situations (e.g. ethical dilemmas). Such persons are more likely to make a sound judgment and engage in correct ethical behaviour. As stated by Beu et al. (2003), "cognitive consistency theory suggests that ethical behaviour is more consistent with a self-perception of high worth… the confidence in personal competence exhibited by high self-efficacy individuals should allow them to believe they can succeed without unethical means" (p. 93).

Flannery and May (2000), in a study examining ethical intentions of managers, used self-efficacy as a proxy measure of internal perceived behavioural control, but did not find support for this internal measure as having an influence on intentions. However, these authors suggest that since their research was the first to use self

efficacy as a control factor, future empirical attempts should be made to examine it in different organizational settings. Other studies have found that self-efficacy was the strongest predictor of intentions to follow rules (e.g. Broadhead-Fearn and White, 2006). Park and Blenkinsopp (2009) found that perceived behavioural control was significantly and positively related to internal whistle-blowing intentions. Since previous studies indicated mixed results concerning perceived behavioural control, this aspect is incorporated into the conceptual model, and the next hypothesis is as follows:

Hypothesis 1c: Perceived behavioural control will have a positive, direct effect on whistle-blowing intentions among external auditors.

4.5.1.4 Independence commitment and whistle-blowing intentions

Accountability theory argues that accountability should improve decision-making by reducing bias (Tetlock, 1985). Accountability is about being answerable for one's decision and behaviour. Thus, accountability may be linked to independence, which is critical to all agents in an organization, based on perceived fairness and justice. In order to appreciate the nature of independence commitment within the context of whistle-blowing intentions, one must have an understanding of related constructs such as ethical commitment and professional commitment. Ethical commitment is defined as "the extent to which the individual adheres to ideal moral values and their regulatory enforcement within her/his professional community" (Gendron et al., 2006, p. 170). Gendron et al. (2006) suggest that ethical commitment within a professional community is akin to professional commitment. Professional commitment, in an accounting context, can be described as a professional accountant's identification with the norms, codes and practices inherent in the profession. Jeffrey and Weatherholt (1996) argue that this concept speaks to the accountant's willingness to accept and behave in accordance with the profession's goals and values.

The concept of auditor independence is considered as a salient feature of the audit profession as well as an important part of accounting ethics governing the accounting profession. DeAngelo (1981a) describes auditor independence as the likelihood that an auditor will highlight any breaches and misstatements in the financial statements when discovered. Hence, an important feature of professional and ethical commitment in accounting and auditing is referred to as independence commitment. According to Gendron et al. (2006),

> independence commitment is defined as the extent to which the individual accountant considers auditor independence as a key attribute of the profession, and believes that regulatory standards of auditor independence (issued by the profession and/or external regulatory agencies) should be rigorously binding and enforced in the public accounting domain. (p. 170)

Despite the wealth of research on the link between ethical commitment and ethical behaviour, there is relatively little empirical knowledge about the effects of independence commitment on ethical intentions and, more specifically, whistle-blowing intentions among auditors.

Gendron et al. (2006) introduced the independence commitment concept. They found that non-public accountants had higher levels of independence commitment compared with public accountants and that accountants in Big five firms had significantly lower independence commitment, compared with those employed in medium and small size firms. The study, however, did not examine the important outcomes of independence commitment. Gendron et al. (2006), however, pointed out the need for future research to examine the effects of independence commitment on "auditors' decision-making processes in which auditor independence is supposed to play a key role" (p. 187).

Hall, Smith and Langfield-Smith (2005) argue that accountants with a strong commitment to their profession are likely to experience high "moral obligation to

engage in behaviours that are beneficial to the profession, such as reporting the questionable acts of others (discretionary behaviours)" (p. 103). Hence, it is logical to assume that whistle-blowing intentions are likely to be influenced by the degree of independence commitment an auditor possesses. The next hypothesis is as follows:

Hypothesis 1d: Independence commitment will have a positive, direct effect on whistle-blowing intentions among external auditors.

4.5.1.5 Personal responsibility for reporting and whistle-blowing intentions

When whistle-blowing is perceived as prosocial behaviour in an organization, personal responsibility for reporting may influence an individual's decision making. Curtis (2006) argues that responsibility for reporting can be "influenced by feelings of social responsibility to one's colleagues and employer, attitudes toward one's profession, the number of other observers and personal ethical values" (p. 193). Logically, individuals may feel obligated to report questionable acts by their moral sense of right and wrong (which is moral obligation or social responsibility), or sense of commitment and loyalty to the organization and job description (role responsibility). Curtis (2006) further argued that the diffusion of personal responsibility may occur when many individuals observe the wrongdoing and remain silent, thus reducing personal responsibility to prevent harm to the organization or society (the bystander effect). Drawing on the work of Graham (1986), Schultz et al. (1993) propose this variable in their model of reporting questionable acts.

In the audit profession, auditors' professional rights and responsibilities to report wrongdoing are set out in their professional codes of conduct. Given their strategic position to observe wrongdoing such as fraud, it is perceived that their role responsibility is to report such wrongdoing. Kaplan and Whitecotton (2001) suggest that audit firms could implement mechanisms for improving the audit staff's personal

responsibility to report unethical acts of their colleagues. The issue is that the reporting of a violation or wrongdoing committed by their peers should be a perceived, morally-derived, responsibility to whistle-blow, given that non-disclosure may result in the loss of reputation and income by the audit firm. Miceli et al. (1991) found that internal auditors were more likely to whistle-blow, when the act was viewed as being an important part of their role or job responsibility (i.e. role-prescribed). Kaplan and Whitecotton (2001) and Schultz et al. (1993) found strong positive support for personal responsibility and the likelihood of reporting questionable acts. This variable becomes very important to the external auditing profession. The codes of professional conduct (e.g. AICPA and ICAEW) have stipulated that their membership have responsibilities to the public, clients and colleagues, which are beyond the legal and regulatory responsibilities. Hence, the next hypothesis is as follows:

Hypothesis 1e: Personal responsibility for reporting will have a positive, direct effect on whistle-blowing intentions among external auditors.

4.5.1.6 Personal cost of reporting and whistle-blowing intentions

Another important antecedent is the auditor's assessment of the personal cost of reporting. Drawing on Graham's (1986) work, Schultz et al. (1993) proposed this variable by arguing that it is the individual's perception of the risk of retaliation from the members in the organization that could effect one's willingness to report wrongdoing. Ponemon (1994) suggests that "the nature of and extent of the retaliations or sanctions imposed by management or co-workers against the whistle-blower is perhaps the most significant determinant to the prospective whistle-blower's decision in the communication of organizational wrongdoing" (p. 123).

Prior research finds support for a negative relationship between the perceived personal cost of reporting and reporting intentions (Arnold and Ponemon, 1991; Schultz

et al., 1993; Hooks et al., 1994; Kaplan, 1995; Kaplan and Whitecotton, 2001). Curtis (2006) argues that retaliation may come in the form of refusal of pay increases, unfair performance reviews, lack of peer support (e.g. ostracism), transfers to undesirable posts or jobs and possible firing. Curtis (2006) further argues that high personal cost may be reduced by "belief in the existence of support and protection for dissidents such as the belief that professionalism demands reporting behaviour" (p. 194).

Hence, the next hypothesis is as follows:

Hypothesis 1f: *Personal cost of reporting will have a negative, direct effect on whistle-blowing intentions among external auditors.*

4.5.2 Moderating variables

Four moderating variables are included in the model: perceived organizational support, team norms, cohesion and perceived moral intensity (Figure 9). The inclusion of these variables is based on the understanding of how isomorphisms affect organizations including the audit firms. These moderating variables are discussed below.

4.5.2.1 Isomorphic factors

4.5.2.1.1 Perceived organizational support

Normative isomorphism is primarily aimed at enhancing the professionalism of staff towards a common goal by setting the most appropriate structure, and perceived organizational support is seen as one of these designs. Perceived organizational support encourages staff's recognition and the level of support for organizational and other goals that may extend over and above normal duty (Wayne, Shore and Liden, 1997; Adebayo, 2005). Eisenberger, Fasolo and Davis-LaMastro (1990) describe perceived organizational support as workers' perceptions of "the extent to which the organization

values their contributions and cares about their well-being" (p. 51). Adebayo (2005, p. 688) argued that the concept of perceived organizational support is consistent with the norm of reciprocity (Gouldner, 1960) and social exchange theory (Blau, 1964). Based on social exchange theory, the higher the perceived level of support from the organization, the more likely employees will feel obligated to be committed to the organization (Eisenberger, Huntington, Hutchinson and Sowa, 1986). Thus, employees will feel comfortable making decisions such as reporting unethical acts, when it is perceived that the organization will support him or her.

If an individual perceives that the organization is supportive of him or her, the individual would give in return by adopting positive attitudes to the professional and ethical environment of the organization, and demonstrate prosocial behaviour within the organization. Perceived organizational support has been claimed to be valued by staff since it may address their socio-emotional needs and serves as an indicator that the organization is willing to support the individual and reward effort (Eisenberger et al., 1986). The literature offers three main work-related antecedents of perceived organizational support: organizational rewards, working conditions and procedural justice (Rhodes and Eisenberger 2002; Kottke and Sharafinski, 1988). Shore and Tetrick (1991) argue that an employee's perception of an organization's level of support may lead to the employee's degree of commitment to the organization.

An individual will not report unethical acts unless he or she perceives that the organization will be supportive. The auditor must assess the degree of expected support when deciding whether to report any wrongdoing, thereby reducing the personal cost of reporting. Thus, the culture of care and support in the firm (normative isomorphism) should be highly ethical with the right set of core values to promote integrity. This is critical in an audit firm where lower level staff members need to be able to trust senior

staff, especially where the wrongdoing may be perpetrated by a powerful individual such as a partner. Eisenberger et al. (1986) argued that perceived organizational support can meet staff's socio-emotional needs, and as a result, can increase commitment and loyalty to the organization. These authors further argued that perceived organizational support highlights the organization's willingness to recognise and reward staff's efforts for assisting the organization to be successful. In sum, they concluded that perceived organizational support could positively influence staff's behaviours that may benefit the organization. Adebayo (2005) found that the relationship between attitudes and prosocial behaviour among the police was moderated by perceived organizational support.

Prior research (e.g. Hooks et al., 1994; Kaplan and Whitecotton, 2001) suggests that a relationship exists between the level of organizational support and acceptability of whistle-blowing. This is important since auditors may perceive high personal costs of reporting which may be mitigated by their perceptions of whether the firm will support them. Thus, it can be argued that perceived organizational support is a deterministic component for the isomorphic element of institutional theory, whereby effective corporate governance mechanisms positively influences prosocial behaviour. This variable is important to explaining whistle-blowing intentions among external auditors, given that many firms have implemented internal mechanisms such as ethics hotlines, ethics committee, and ethics training to facilitate a sound ethics and whistle-blowing culture. These arguments lead to the following hypothesis:

Hypothesis 2: Perceived organizational support will moderate the relationships between individual-level antecedents (attitudes, desired moral approbation, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting), and whistle-blowing intentions among external auditors.

4.5.2.1.2 Team-based variables

Previous studies (e.g., Nichols and Day 1982; Abdolmohammadi et al., 1997; Abdolmohammadi and Reeves, 2003) suggest that group decisions are superior to individual decisions. Nichols and Day (1982) found that team decisions reflected higher moral reasoning scores than the average ethical reasoning level of their individual members' decisions. Abdolmohammadi et al. (1997) found that the most capable and dominant members of the group significantly influenced the decisions of interacting groups. Abdolmohammadi and Reeves (2003) concluded that there was superior ethical decision-making by groups when compared with individual decision-making. However, not all groups are effective, since they are made up of different individuals who interact and undergo groupthink in order to make decisions (Janis 1972).

Dowling (2009) defined an "audit team as the social clan of auditors an auditor works with across several audit engagements" (p. 778). Thus, it is necessary to incorporate factors of group or team dynamics into whistle-blowing models. Under this factor, two components are deemed necessary for the whistle-blowing model: group cohesion and team norms. Why did no one within the audit firm of Arthur Andersen blow the whistle on the audit partner's collusion with Enron's management and subsequent decision to obstruct justice by shredding documents? Might team norms and group cohesion have created a tightly knit group that made it more difficult for individuals to 'break out' and report unethical behaviour?

4.5.2.1.2.1 Group cohesion

Cohesion may be defined as the extent that individuals value their membership in a group and wish to stay in the group (Narayanan, Ronson and Pillutla, 2006). The cohesiveness of a group or team will have a positive effect on the group's members

who want to stay part of the group, assist in conforming to the norms and values of the group regarding appropriate attitudes, and normally putting the group's interest first (Sanders, 2004). Based on empirical research in the management literature, team members will show more cooperative behaviour and be more sensitive to others in cohesive groups (Kidwell, Mossholder and Bennett, 1997). There is also an association between norms and cohesiveness and performance. The group norms should be stronger in high cohesive groups. Stogdill (1972) posited that where low performance norms are present, greater cohesiveness can negatively impact performance.

Narayanan et al. (2006) suggested that cohesion facilitates and influences individuals' beliefs and propensity to perform acts (unethical or not) that benefits the group by clouding ethical judgments. This is because others may accept their actions or responsibility for their action in the group, without consideration for the ethicality of the act. Schminke and Wells (1999) argued that group cohesiveness can influence ethical decision-making by significant interaction and discussion of the ethical issues in an effort to achieve ethical framework conformity. Using Price and Mueller (1986)'s Work Group Cohesion Index, Schminke and Wells (1999) found that individuals experienced greater levels of utilitarianism (acting for the greatest good or least harm) in more cohesive groups in ethical decision-making. While high cohesiveness may be a requirement for promoting increased performance in the management literature (Kidwell et al., 1997), it may be an enabler of unethical behaviour (Narayanan et al., 2006). It may be argued that in high cohesive audit teams, members may not want to go against the group, and as such may not report unethical acts that benefits or harms the team. It is possible that in less cohesive groups, members are more likely to step out and report.

The influence of individual factors on ethical intentions has been argued to be dependent on or moderated by factors that are outside of the individual's control (Jones, 1991). Group cohesion is one such factor. Group cohesion has not been researched sufficiently in the context of ethical decision-making and whistle-blowing among audit staff, but its inclusion is warranted, given the impact of teams as an important variable in ethical decision-making research. For this reason, this variable is incorporated into the model, and the next hypothesis is as follows:

Hypothesis 3:   Group cohesion will moderate the relationships between individual-level antecedents (attitudes, desired moral approbation, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) and whistle-blowing intentions among external auditors.

4.5.2.1.2.2 Team norms

The extent to which an individual engages in a particular behaviour is largely due to the norms attached to a group of which he or she is a member. The concept of norms in the context of ethical decision-making has received a great deal of attention in the literature, where perceived social pressure has been proposed to influence ethical intentions (Ajzen, 1991).

However, this study's particular interest is on team norms as a moderating variable. Team norms can be defined as "legitimate, socially shared standards against which the appropriateness of behaviour can be evaluated" (Chatman and Flynn, 2001, p. 956). Norms regulate team behaviour by providing 'implicit guidelines' for members. According to De Jong et al. (2005), team norms are strong "when there is strong consensus among individual members about the dominant appropriate behaviour" (p. 1598). Norms set out what may be done in situations (i.e. expected behaviour) based on the interactions of group members. Bettenhausen and Murnighan

(1991) argued that norms may be considered as those standard and normal behaviours that are expected and required by other members of the group.

Narayanan et al. (2006) posit that cohesion has a positive impact on the individual's conformity to group norms. If the norms of the group support ethical behaviour, individuals would be more likely to be ethical in cohesive groups. Thus, they argue that group norms would moderate the effect of cohesion on unethical behaviour.[15] Hence, norms in an audit team can have a positive effect on an individual member's behaviour regarding appropriate organizational practice. Hooks et al. (1994) argued that social influences, like team norms, may colour one's perception of the seriousness of the wrongdoing. By transferring this logic into the realm of ethical intentions and whistle-blowing, the extent to which the team expresses similar and strong team norms regarding ethical practices in an organization may affect how an individual member is likely to engage in ethical behaviour. Hence, the next hypothesis is as follows:

Hypothesis 4: Team norms will moderate the relationships between individual-level antecedents (attitudes, desired moral approbation, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) and whistle-blowing intentions among external auditors.

4.5.2.2 Issue-specific factor

4.5.2.2.1 Perceived moral intensity

Jones (1991) criticised previous ethical decision-making models for their failure to account for the effects of issue-specific variables and introduced the important construct of moral intensity in the study of ethical decision-making. People act differently, based on the nature of the issue itself. Hence, ethical decision-making is

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[15] To the best of this researcher's knowledge, Narayanan et al.'s (2006) model has not been empirically tested.

issue-contingent. Within the context of the proposed model, intentions to blow the whistle are contingent and dependent on the context or the nature of the issue. The concept of moral intensity consists of six components. Table 4 provides definitions of these six components, as they represent the main characteristics of an ethical issue and how they may affect whistle-blowing intentions.

Table 4: Jones' (1991) perceived moral intensity constructs

MI construct	Definitions
Magnitude of consequences	– The total harm or benefit likely to result from undertaking a moral decision.
Social consensus	– The degree of social agreement that other persons are likely to perceive an act or decision as being good (ethical) or (bad) unethical.
Probability of effect	– The likelihood that the moral decision or act will actually occur and result in harmful or beneficial consequences.
Temporal immediacy	– The amount of time between the occurrence of the ethical act and the onset of its consequences (i.e. negative or positive).
Proximity	– The closeness of the relationship between the moral agent and the victims or beneficiaries of the decision.
Concentration of effect	– The inverse relationship between a moral act of a given magnitude and the number of persons that are likely to be affected by the act.
Source: Jones (1991, pp. 374-377).	

Paolillo and Vitell (2002) found that moral intensity significantly influenced ethical intentions. Singhapakdi et al. (1996) found ethical intentions were significantly influenced by five moral intensity dimensions, with the sixth dimension (proximity) having a significant effect only in one scenario. Shafer et al. (2001) investigated the impact of moral intensity on auditors' ethical judgments on the issue of pressure from the client to alter the financial statements, which could influence aggressive financial reporting. Based on a survey of 323 CPAs in the USA, Shafer et al. (2001) used an

experiment manipulating moral intensity (low vs. high) by varying the monetary value of the potential misstatement. They only used two components of the moral intensity construct, magnitude of consequences and probability of effect (harm). Shafer et al. (2001) found that magnitude of consequences and probability of effect influenced the auditor's support of aggressive financial reporting, which implied that economic or utilitarian factors influence an auditor's ethical decision-making. Magnitude of consequences is similar in many respects to materiality (i.e. monetary terms or the degree of seriousness), a term that is used extensively by external auditors in judgements, testing and reporting (Shafer et al., 2001; Brennan and Kelly, 2007).

Moral intensity has been used in previous research as a moderator in the context of ethical intentions. For example, Flannery and May (2000) investigated the moderating effect of perceived moral intensity on the relationship between the factors derived from the theory of planned behaviour (attitudes, perceived behavioural control and subjective norms) and intentions to act ethically. Flannery and May (2000) contested that moral intensity is a function of the ethical issue and it included "neither characteristics of a decision maker nor influences exerted by an organization" (p. 648). Moral intensity was hypothesised to moderate such relationships. They used only one component of moral intensity – magnitude of consequences – in their study. Flannery and May (2000) found that this variable played a significant moderating role in the relationships between the independent variables and ethical intentions.

To date, to the best of this researcher's knowledge, no study has examined moral intensity as a moderating role within the context of whistle-blowing intentions among auditors. Indeed, it is logical to argue that the effect of the determinants described above on whistle-blowing intentions may be dependent on the nature of the issue itself. Individuals may be more likely to blow the whistle in circumstances where

143

moral intensity is perceived to be high, given the severity or seriousness of the act in question. To control for this possible effect, moral intensity was incorporated in the model and leads to the next hypothesis:

Hypothesis 5: *Perceived moral intensity will moderate the relationships between individual-level antecedents (attitudes, desired moral approbation, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) and whistle-blowing intentions among external auditors.*

4.5.3 Individual, firm and societal effects

The decision to blow the whistle is based on the equality principle, the inherent wrong and right of the behaviour and the influence of codes and regulations that are coercively exerted, hierarchical, routinised and rigid on the intentions. According to the model in Figure 9, when an audit practitioner blows the whistle, there are positive and negative consequences to society, the individual whistle-blower and his/her audit firm. Positive societal effects could include the reduction of the cost to society, resulting from loss of shareholders' confidence and undermining of the capital markets, reduction of loss of jobs as a result of a closure similar to Enron, and also ensuring potential tax revenues to the government. In addition, the image of the profession will be highly regarded by society when the auditor acts in the public interest (Kant's and Rawls' theories). The case of Enron shows how society responded negatively to the audit profession, when none of Arthur Andersen's staff blew the whistle on the unethical acts and other wrongdoing committed by other audit staff members and the client. As a result, the audit firm was perceived as being dishonest and unethical.

For the individual practitioner, whistle-blowing may still have negative effects. The whistle-blower's reputation can be tarnished for being a snitch and being disloyal. The retaliation from the organization and other employees can be unbearable. The cases of David Kelly and Jeffrey Wigand aptly illustrate the ostracism. David Kelly, a

biological weapons inspector for the British Government, disclosed information that Iraq did not have weapons of mass destruction. The British Government publicly dismissed Kelly's claims and soon after he committed suicide.

Another example is the case of Dr. Jeffrey Wigand, a researcher at Brown and Williamson Tobacco Corporation, who in the 1990s disclosed that the US tobacco authorities were not honest about the lethalness and addictiveness of tobacco, as they manipulated nicotine levels to keep smokers hooked to cigarettes. Wigand suffered significant emotional stress including a lawsuit for breach of confidentiality, loss of income and personal threats as a result of the incident. However, there can be positive effects whereby the whistle-blower can be perceived in a favourable light if the organizational culture and societal norms encourage whistle-blowing. Wigand's disclosure to the media vindicated him as many victims of cigarette related illnesses successfully sued the tobacco companies.

Brennan and Kelly's (2007) study of trainee auditors' confidence in whistle-blowing mechanisms in their audit firms and the likelihood of whistle-blowing affecting their careers highlighted the possible consequences that are considered by the potential whistle-blower. They found that where audit firms had adequate mechanisms for reporting wrongdoing, the sample of auditors were more likely to whistle-blow and perceived that the act of whistle-blowing would not negatively affect their career prospects. In addition, Brennan and Kelly (2007) suggests that future research could investigate "auditors' belief that reporting wrongdoing would result in positive outcomes (such as exposing the wrongdoing) and would lead to positive outcomes for the auditor" (p. 83). Thus, given the above arguments, the model shows the impact of whistle-blowing on society, the audit firm and the individual (Figure 9).

4.6 Conclusion

In this chapter, this researcher proposes a conceptual model for whistle-blowing intentions among external audit practitioners. It is proposed that team, organizational and issue-specific factors will moderate the relationship between key individual-level antecedents and auditors' whistle-blowing intentions. The proposed model is positively influenced by the propensity to blow the whistle, and the moral, organizational and social commitment for protecting public interest (Kant's and Rawls' theorems, effective organizational support, group cohesion and team norms), and negatively influenced by the prevailing organization milieu and high personal cost of reporting.

Audit practitioners need to be independent from parties as well as situations that may impair their objectivity, because without independence, their social role of ensuring corporate management are held accountable will be insignificant or of no value to users of their reports. This includes audit practitioners being prepared to take an ethical stance which may be incongruent with that of the audit firm. In other words, the 'safeguarding' role expected by the profession would be compromised, if practitioners fail to act through mechanisms such as whistle-blowing in situations perceived as illegal, immoral or illegitimate activities.

This chapter also presents the hypotheses for the conceptual model. The model represents an attempt to formulate an integrated explanation for whistle-blowing (reporting) intentions among auditors. Theoretical and empirically-based arguments were provided to justify the conceptual framework of the model. The review has captured much of the current knowledge landscape regarding whistle-blowing. It contributes to the literature by including factors relevant to the audit profession. It is acknowledged that the model is not comprehensive, but attempts to synthesise factors that are considered to be important to the audit profession. Given the inherent difficulty

of measuring ethical action or behaviour, the study of whistle-blowing intentions is central to understanding ethical decision making process. Intentions have been argued to be a very good predictor of behaviour (Ajzen, 1991; Fishbein and Ajzen, 1975). The above discussion utilizes justice, moral, institutional and behavioural psychology theories to inform the construction of the model.

CHAPTER 5: RESEARCH METHODOLOGY

5.0 Introduction

This chapter explains the research methods used and presents the strategies utilized to maintain the reliability and validity of the findings of the research. Chapter 4 dealt with hypotheses formulation for the conceptual model. Chapter 5 deals with the data collection procedures. Firstly, the chapter presents a critical analysis of qualitative and quantitative methodologies and the associated methods in research, followed by an examination of the research design and its related methods, and the justification and limitation of the design. Secondly, the chapter examines positivism, as a suitable methodological stance, and its relevance to the current research. In addition, there is an examination of the link between central themes in the current research such as positivism, morality and psychology. Thirdly, relevant information concerning the selection of the participants, a description of the data collection instrument and operationalisation of constructs used, the research design, the procedures of data collection, data analysis strategies and ethical guidelines will be presented. Fourthly, the interview phase of the research is explained. The final section concludes the chapter.

5.1 Critique of research methodologies

Methodology may be described as "the science of finding out" (Babbie, 2004, p. 6) and can comprise qualitative and quantitative approaches which are popular research methodologies. Quantitative research relies on hypothesis-testing (theory testing) using various statistical tools (Babbie, 2004). This type of research is essentially based on numerical measurements and its main goal is generating predictive conclusions

concerning a particular theory and its implications. Quantitative research is primarily concerned with deductive logic and seeks to predict and explain some phenomenon. On the other hand, qualitative research is based on non-numerical information (Babbie, 2004; Neuman, 2003). This type of research assumes that multiple realities exist in a particular situation, and that research (or truth) is context-bound. Qualitative research essentially follows inductive logic, and has the main goal of understanding or uncovering the underlying patterns outlined by an established theory. The research framework for this thesis is shown in Figure 11.

Figure 11: Research framework
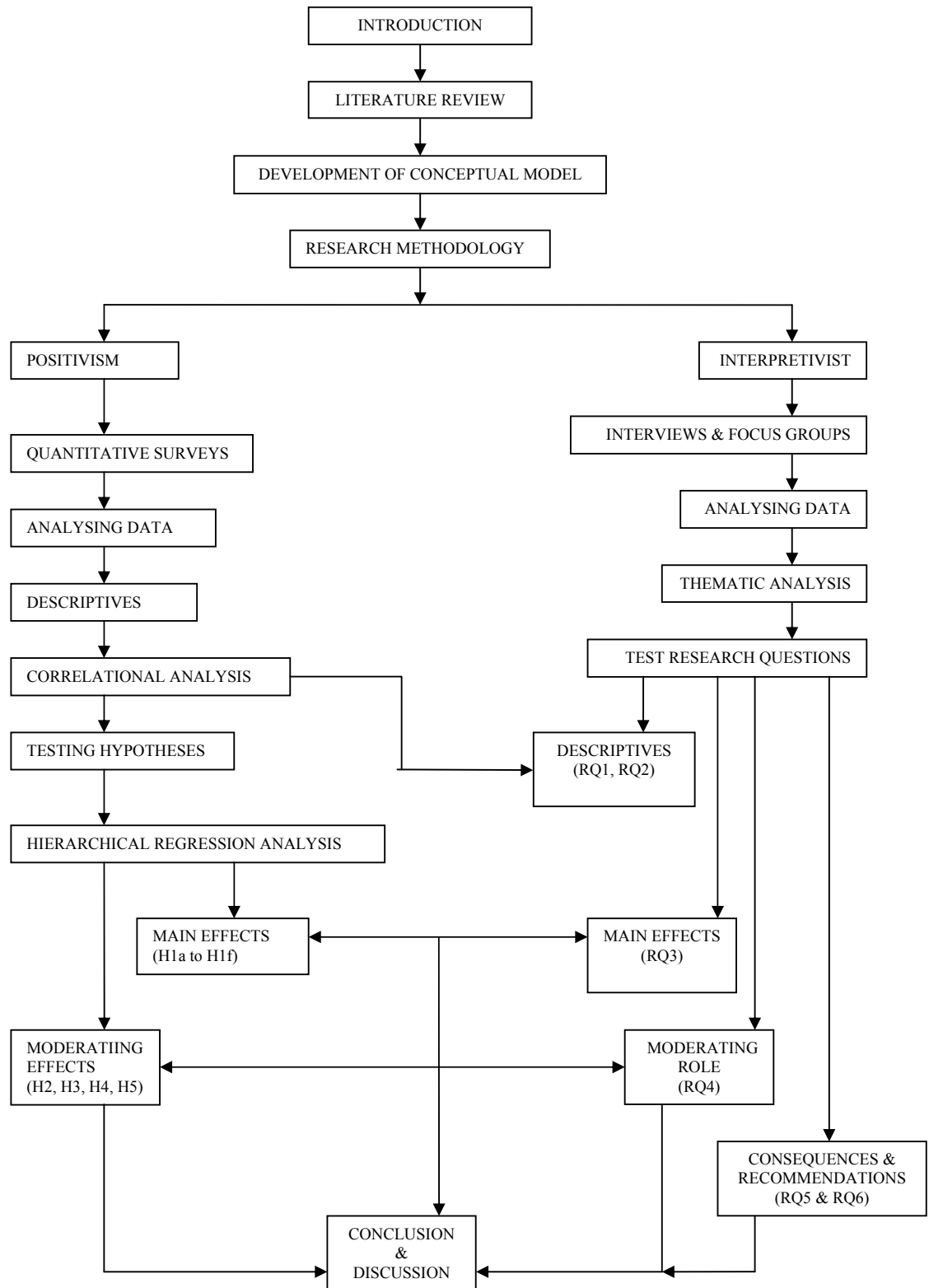
5.2 Methodological orientation and research design

5.2.1 The philosophy and principles of positivism and objectivity

Positivism is based on an objectivist epistemology. For example, positivists agree that science is free from values, beliefs and opinions; in other words, true science is objective. Objectivity in research is important for positivistic researchers because reality is independent of personal values and beliefs. Consequently, positivist researchers are expected to remain detached from their research – they are observers, and not participants in the research process. In essence, the positivists assert their objectivity based on the view that their findings should not be influenced by their personal beliefs and experiences.

Positivism involves a number of assumptions and tenets that inform its approach in all dimensions of social research. One major assumption of positivism is that the main goal of research is scientific explanation (Babbie, 2004; Neuman, 2003). Scientific explanation refers to the discovery and documentation of universal rules of social behaviour. The discovery of these universal laws is important because, according to the positivists, these laws would allow social researchers to predict and hopefully change certain phenomena (or behaviour). The existence of universal laws rests on the view that reality is external to the researcher, that is, it [reality] exists independent of the researcher's values, beliefs and subjective perceptions. Social reality is not chaotic or random but is ordered and logical (without these characteristics, prediction and explanation would be impossible). According to positivism, science permits the discovery of natural and social laws. Positivism concerns the discovery of truth and knowledge. The doctrine arose as an apparent reaction to the skepticism of philosophers who questioned the ability of humans to truly "know" their own world and ultimately the nature of their existence. The positivists argued that they could

establish "knowledge" by the systematic observation and quantitative measurement of variables.

Logical positivists argued that knowledge could be obtained through "a rigorous methodology of scientific verification" (Indick, 2002, p.23), and they emphasised the importance of scientific rigour, while rejecting non-scientific approaches. Popper (1958, 1963) supplemented this philosophy of scientific rigour with his theory of falsifiability. This Popperian assumption posits that theory that is not falsifiable is unscientific and "no hypothesis could be accepted as true unless every other possible attempt to falsify this hypothesis failed" (Indick, 2002, p. 23). Positivism, according to Indick (2002), has been trivialized to purely represent the power of the r or p value. For example, statistical significance ($p < .05$) equates to a major discovery of truth and a high correlation (r) indicates that some relationship exists systematically in the real world. In short, positivist studies are primarily quantitative in nature. Empirical science embodies the positivist method - hypotheses are developed and empirically tested. Findings are validated when experiments are replicated and yield consistent results.

5.2.2 Positivism and psychology

At this point, the chapter attempts to establish a link between positivism, psychology and morality, which are central issues drawn from the proposed research. This section also examines the "measurability" of morality (i.e., whistle-blowing) as an object of research.

Indick (2002) argued that if positivism is based on measurable observations, then morality must be a measurable concept. However, moral values, which focus on right and wrong, are not measurable because they are not defined in objective terms. Frankena (1973) has argued that right and wrong cannot be measured empirically,

whereas the concepts of good and bad may be measured in empirical terms. If right and wrong is akin to good and bad, respectively, the positivist can objectively measure moral behaviour. This argument would seem to support the utilitarian concept, whereby the "rightness" of the act is measured in terms of the amount of goodness it produces. Utilitarianism argues that an act can be ethically correct, if the act is for the 'greater good' of others (Mill, 1975).

However, there are some limitations to the utilitarian doctrine. Firstly, it examines the consequences of an act in order to determine its morality. Secondly, although the positivist may equate an ethical act with a good outcome, the researcher still needs to determine what is meant by the concept of "good" (Indick, 2002). Indick (2002) argued that because there is no consensus on the conceptual definition of "good", the positivist cannot assert that there is a relationship between a good outcome and right moral behaviour. Given the above stance, the current study employs a quantitative-positivistic approach as its methodological orientation.

5.2.3 Critique of quantitative research methodology

Quantitative research rests on the assumptions of positivist science. A major strength is its ability to develop and test theories regarding ethical behaviour in organizations. The majority of the research on ethical behaviour in organizations is concerned with theory development and has relied on the quantitative methodology. For example, Flannery and May (2000) tested Ajzen's (1991) theory of planned behaviour and Jones' (1991) moral intensity construct within the context of ethical decision-making in organizations. Their study was based on a hypothesis-testing orientation and adopted a quantitative methodology. This quantitative methodology was based on statistical testing of the effects of several variables on ethical intentions.

Qualitative research does not permit this kind of theory-testing or explanation. Another strength of quantitative research is its focus on generalisability. The reliance on large and representative samples makes inferences to the larger population much more feasible. Studies on ethical behaviour and whistle-blowing have obtained data from samples of at least 100 or more participants (Label and Miethe, 1999; Curtis, 2006; Brennan and Kelly, 2007). The findings of these studies have stronger generalisability than those derived from qualitative studies. For example, Neuman (2003) argued that qualitative research is not concerned with large sample sizes as well as generalisability or external validity.

It is important to note here that quantitative research can be expressed in two major designs such as the survey and experimental research designs. These designs have been mainly used in current auditing literature regarding whistle-blowing and ethical intentions. The former relies on the use of structured (or semi-structured) questionnaires which can be administered to a large sample of respondents. This design can also be conducted using longitudinal and cross-sectional designs. The latter focuses on surveying a cross-section of participants at one point of time, whereas the former is based on surveying a sample of participants on more than one occasion. Although cross-sectional designs have been the more popular approach in the whistle-blowing literature (e.g. Chiu, 2002; Chiu, 2003), the longitudinal approach has been argued to have important advantages over that offered by cross-sectional studies (Chiu, 2003). For example, longitudinal designs provide a stronger means to explore causal relationships between variables.

Overall, the survey research design has its strengths and weaknesses, especially in terms of whistle-blowing. The benefits and shortcomings in survey research lie in its varying forms in the research process. For example, different types of surveys can

collect data from respondents at a much faster rate and are less expensive than other techniques and methods. Particular forms of surveys, such as face-to-face, telephone and online surveys are "quick" data-collection techniques used to obtain data on the spot. Moreover, as Zikmund (2000) argued, these forms of surveys provide enough social interaction between interviewer and respondent which "increases the likelihood that a response will be given to all items on the questionnaire" (p.192). Hence, these forms of surveys are not only faster data collection tools but also ensure that the researcher obtains a fully-completed survey (i.e. the response rate is higher).

However, it is important to recognise that investigating sensitive research topics and areas (similar to the one used here – whistle-blowing intentions) may not be an easy exercise, using face-to-face or telephone-based surveys (Schultz et al., 1993). Zikmund (2000) argued that, in a face-to-face survey interview, a respondent is not anonymous, and as a result, may be unlikely to provide sensitive information in the presence of the interviewer. Alternatively, respondents may be more likely to 'colour' their responses in their favour, resulting in social desirability bias. This problem will also present itself in telephone-based interviews.

Neuman (2003) argued that face-to-face surveys are more expensive than other types of survey methods. With respect to telephone interviews, Zikmund (2000) argued that the length of interview time is limited. Hence, the use of long and detailed questionnaires would be inappropriate for telephone surveys. The internet can be used to conduct meaningful surveys. Online surveys are likely to be substantially cheaper, once the required software has been developed (Babbie, 2004). Babbie (2004) argued that "a weakness, however, lies in the difficulty of assuring that respondents to an online survey will be representative of some more general population" (p. 274).

Mailed surveys are another technique under the survey methodology. This form of survey involves sending respondents via the mail. These types of surveys also have their advantages and disadvantages. One advantage of the mail survey is its ability to reach respondents in distant geographical regions or other countries. Zikmund (2000) referred to this advantage as geographical flexibility. Flannery and May (2000) investigated ethical intentions among business managers operating in various areas across the United States of America. These authors relied on the mailed survey method as a means of collecting information from respondents who were otherwise inaccessible. Another important advantage of the mail survey approach is the low cost attached. Mail surveys do not rely on heavy labour costs, compared with face-to-face surveys.

Another related advantage is that it does not require the presence of a survey interviewer during the administration phase and respondents may reveal sensitive and confidential information much more easily and readily. The respondent can also complete the questionnaire at his or her convenience without the intrusion of an interviewer. These last two advantages are common to a more global form of survey types (of which mail survey is a part) referred to as "the self-administered survey." Self-administered surveys are those surveys that respondents complete themselves without the presence of interviewer. Social desirability bias is reduced because respondents do not feel threatened by the presence of an interviewer and are less likely to 'fake' when completing the survey instrument (Zikmund, 2000; Neuman, 2003). It is important to note here that all self-administered surveys do not have to be mailed. The researcher can leave the questionnaire with the respondents to complete and return at their convenience.

A major disadvantage of mailed surveys is that it is has extremely low response rates, compared with other survey methods. Flannery and May (2000) obtained only a 20 percent response rate based on the use of mailed survey and in spite of a mailed follow-up reminder card which was sent to the respondents. In fact, self-administered surveys generally have lower response rates, compared with interviewer-administered surveys. Furthermore, since a self-administered survey does not rely on interviewers being present to clarify issues surrounding the questionnaire, the response error rate increases.

Further concerns associated with the survey research include self-report bias, common method variance, and the inability to infer causality (due to the correlational nature). Chiu (2003), in a study on whistle-blowing, relied on a self-report survey methodology and experienced limitations regarding the potential influence of common method variance and self-report bias. Research on whistle-blowing has also relied on the experimental method. For example, Schultz et al. (1993) and Kaplan and Whitecotton (2001) used experimental methods to investigate intentions to whistle-blow in organizations. The experimental research design is used to establish causality between or among variables in a controlled setting. This quantitative design is stronger (more rigorous) than the survey design for a number of reasons. In experiments, researchers can control for extraneous variables while manipulating the independent variable in order to note its effects on the dependent variable.

Surveys cannot control for extraneous variables in the research process, and variables cannot be manipulated in survey research. Hence, the survey research design is not suitable for establishing causal links between variables. Other techniques in experimental design that reinforce its value in quantitative research are randomisation, matching and counterbalancing. Kaplan and Whitecotton (2001) argued that the

experimental method provides a means of testing models that are not otherwise possible. Kaplan and Whitecotton (2001) further argued against the survey research design by stating that "surveys of individuals who have reported questionable behaviour are subject to retrospective interpretation and self-selection bias" (p. 60).

However, the experimental research methodology has several limitations. These limitations together may have serious effects on an experiment's ability to establish causality. They include experimenter bias, testing, instrumentation and selection effects. Furthermore, experiments are conducted in artificial settings, and may not reveal much about actual life experiences outside the experimental setting (Babbie, 2004). Much of the research on whistle-blowing and ethical intentions is based on survey designs rather than on experimental research designs (e.g. Chiu, 2003). Whistle-blowing is a phenomenon that exists within a natural setting and empirical attempts to explain this behaviour should be based in a 'real life' setting. Thus, the survey design is deemed to be the more appropriate of the two research designs for this current study.

5.3 Description of Barbados

The sample was drawn from Barbados, a former British colony, located in the Caribbean. It has a population of approximately a quarter of a million, a size of 166 square miles and a high literacy level. Barbados is a democratic country, with a small open economy that includes thriving industries of manufacturing, tourism, offshore financial services and agriculture (Alleyne et al., 2006). Many of these businesses depend on audit practitioners to provide expert opinions (Alleyne, 2002, p. 63). The Institute of Chartered Accountants of Barbados (ICAB), established in 1974, regulates the accounting profession (Alleyne et al., 2006). ICAB is a member of the

International Federation of Accountants (IFAC), and its membership is affiliated with other recognized accountancy bodies (e.g. AICPA (CPA), ACCA, ACA, CGA and CMA) in the USA, UK and Canada.[16] As of March 31, 2009, 186 persons held practising certificates to audit, out of ICAB's total membership of over 600 qualified accountants. In Barbados, audit firms include the major international accounting firms of Ernst and Young, KPMG, PricewaterhouseCoopers and Deloitte and Touche. In addition, there are several smaller firms of varying sizes (e.g. Pannell Kerr Forster and Porter Hetu International), as well as many sole practitioners (Alleyne et al., 2006).

The Barbados Companies Act regulates Barbadian companies (Government of Barbados, 2001). The Act stipulates that the directors of a company should manage the affairs of the company (see section 58 (1b)) and act honestly and in good faith in the best interests of the company (see section 95 (1)). Barbados has always been influenced by the practices of the developed countries (Alleyne, 2002). This influence has also been culturally transmitted through the structures of professional accounting associations. While there is no legislation similar to Sarbanes-Oxley Act in place, it has been widely accepted by the local accounting body (ICAB) and other local regulators (e.g. Barbados Stock Exchange) that adoption of legislation such as the Sarbanes Oxley Act is critical to Barbados, given the significant amount of trade with the USA, and more importantly, the thriving offshore business sector.

5.4 The overall research design

In light of the above, the research design adopted a triangulated approach to achieve the research objectives by utilizing quantitative (survey) and qualitative (interviews and focus groups) methods conducted in two phases. This approach is most effective as

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[16] CPA means Certified Public Accountant (AICPA). The Association of Chartered Certified Accountants (ACCA) and ACA (Chartered Accountant of ICAEW) are UK designations. Certified General Accountant (CGA) and CMA (Certified Management Accountant) are Canadian designations.

different methods can be utilised in a single study, hence the term, triangulation. These combined methods can serve to complement each other, improve reliability and provide a deeper understanding of the phenomenon under study (Brewerton and Millward, 2001). The advantages of using combined quantitative and qualitative approaches are further corroborated by Patton (1990) and Neuman (2003). The research design is shown in Table 5.

Table 5: Research design

Stages of the Research
Phase 1 - Survey
1. Formulate questions
2. Seek approval from Ethics Committee
3. Pilot study
4. Finalise questionnaire
5. Distribute questionnaire
6. Enter data into SPSS
7. Analyse data
8. Present results
9. Draw conclusions
Phase 2 – Semi-structured interviews and focus groups
1. Formulate questions
2. Ethics committee approval
3. Pilot study
4. Finalise Interview Guide
5. Schedule meetings
6. Conduct interviews
7. Transcribe data
7. Data placed in themes and codes
8. Analyse data
9. Present results
10. Draw conclusions

5.5 First phase - The survey questionnaire

The purpose of this section is to present the hypotheses, the selection of a survey questionnaire used to collect data to test the hypotheses, the sample chosen, the data collection procedures and outline the design of the survey questionnaire.

5.5.1 Research hypotheses

The research will test the following hypotheses:

Hypothesis 1a: Attitudes toward whistle-blowing will have a positive, direct effect on whistle-blowing intentions among external auditors.

Hypothesis 1b: Desired moral approbation from others and from self will have a positive, direct effect on whistle-blowing intentions among external auditors.

Hypothesis 1c: Perceived behavioural control will have a positive, direct effect on whistle-blowing intentions among external auditors.

Hypothesis 1d: Independence commitment will have a positive, direct effect on whistle-blowing intentions among external auditors.

Hypothesis 1e: Personal responsibility for reporting will have a positive, direct effect on whistle-blowing intentions among external auditors.

Hypothesis 1f: Personal cost of reporting will have a negative, direct effect on whistle-blowing intentions among external auditors.

Hypothesis 2:   Perceived organizational support will moderate the relationships between individual-level antecedents (attitudes, desired moral approbation, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) and whistle-blowing intentions among external auditors.

Hypothesis 3:   Group cohesion will moderate the relationships between individual-level antecedents (attitudes, desired moral approbation, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) and whistle-blowing intentions among external auditors.

Hypothesis 4:   Team norms will moderate the relationships between individual-level antecedents (attitudes, desired moral approbation, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) and whistle-blowing intentions among auditors among external auditors.

Hypothesis 5:   Perceived moral intensity will moderate the relationships between individual-level antecedents (attitudes, desired moral approbation, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) and whistle-blowing intentions among external auditors.

5.5.2 Participants in the survey phase

5.5.2.1 Selection of the sample

The study sampled auditors within audit firms in Barbados, using a self-administered survey, which could be completed at the participants' convenience. The study sought to focus on two levels of analysis: the individual and the team. It is important to examine team dynamics when researching group members' behaviours and attitudes (Hackman, 1992). Acceptable behaviour is regulated by each team's shared values, standards and norms, which may vary from team to team (Mathieu and Kohler, 1990). Through social learning or groupthink, individuals tend to conform to the norms of the team or group (Bandura, 1986). Prior research has shown that group-level experiences can be assessed by aggregating perceptual measures at the individual level to examine relationships between individual-level and group-level variables (De Jong et al., 2005). Pentland (1993) argued that audit staff usually work in teams and "are situated in the context of intensive on-going interactions with other members of their engagement team, their firm, their client's organization and their profession" (p. 605).

To gain access to selected participants, a letter together with a copy of the questionnaire was sent to each accounting firm and ICAB to inform them about the nature of the research, the reasons for doing it and why it will be of value to the profession (see Appendices B and C for copies of the letters). In addition, the firms were informed about what the possible outcomes might be and were promised feedback. Co-operation was requested and all fears concerning harm to subjects were allayed by assurances given by this researcher. Given that human subjects are being used, guidance and permission from the ethics research committee was sought and obtained.

5.5.2.2 Characteristics of the sample for the survey phase

Demographic information from the sample was sought on gender, age, highest academic qualification, years of professional working experience, length of time in current team, team size, tenure in the company, and their organizational position. Respondents were asked to indicate their organizational position (junior, senior, manager, partner, other). Highest educational level was measured by asking respondents to select the appropriate level from primary, secondary, diploma, bachelor's degree, master's degree, PhD, or other, as well as their professional qualification (ACCA, ACA, CGA, CPA, CMA, and other). Age, number of years employed in the organization, experience in number of years, the number of months spent working in a current and the number of persons within the current team measured as continuous variables.

The data for this sample were collected from external auditors from small, medium and large audit firms in Barbados. Tables 6 and 7 summarise the demographic data for the respondents. Table 6 shows that of the sample of 226 respondents, 54.9% were female, and the mean age was 30.80 (standard deviation (SD) = 9.69) years. Table 6 also illustrates that 74.3% of the sample comprised audit seniors and junior audit staff. Table 7 shows that 78.3% held Bachelor's degrees, while 74.3% of the sample had professional qualifications, with 50% of the sample completing the ACCA's professional qualification. This may suggest that the auditing practitioners in Barbados are significantly influenced by UK standards. Finally, Table 8 illustrates that there were 54 groups, with the majority of the groups comprising 3 to 5 members.

Table 6: Sample characteristics of survey respondents – Age, gender, working experience and organizational position

Variables		
Panel A: Continuous variables	**Mean**	**Standard deviation**
Age	30.80 years	9.69 years
Years of working experience	7.84 years	4.93 years
Panel B: Other variables	**Frequency**	**Percentage (%)**
Gender		
Male	102	45.1
Female	124	54.9
Total	**226**	**100.0**
Organizational position		
Partners	9	4.0
Audit Managers	49	21.7
Audit Seniors	61	27.0
Junior Staff	107	47.3
Total	**226**	**100.0**

Table 7: Qualifications of survey respondents

Variables	Frequency	Percentage (%)
Academic qualifications (education) *		
Secondary	18	8.0
Diploma	12	5.3
Bachelor's degree	177	78.3
Master's degree	7	3.1
Other	12	5.3
Total	**226**	**100.0**
Professional qualifications		
ACCA	113	50.0
ACA	3	1.3
CGA	32	14.2
CPA	11	4.9
CMA	1	0.4
Other	8	3.5
Unqualified **	58	25.7
Total	**226**	**100.0**

Notes: * Highest qualification attained; ** Currently pursuing professional exams

Table 8: Composition of groups in the survey

Group Size (Members)	No. of Groups	Total
3	14	42
4	20	80
5	17	85
6	2	12
7	1	7
Total	**54**	**226**

5.6 Procedures

5.6.1 Piloting the study

This study was piloted through several stages. The first stage involved interviewing four audit practitioners in accounting firms to explore the factors and audit judgment issues that are likely to influence whistle-blowing intentions. These factors were then extracted and compared to factors arising out of the literature. As a result, a preliminary questionnaire was developed. In the second stage, four students of auditing at an undergraduate university were asked to look at the questionnaire and give their comments on its appropriateness, the general reading and interpretation of questions, and relevance of scenarios. The feedback from this second stage effected significant changes to the questionnaire. In the third stage, the amended questionnaire was then given to the same four practising auditors, who suggested further refinement including minor amendments to scenarios as well as layout and presentation of the questionnaire. The fourth stage involved gaining feedback from three academics including the two supervisors of this study, who suggested minor changes that were incorporated in the questionnaire.

This pretest assisted in enhancing the face validity of the instrument. Along with establishing face validity, the internal consistency reliability of the instrument was tested using Cronbach's alphas. Alphas above .70 indicate acceptable internal

consistency (Nunnally, 1978). Pilot testing is an important exercise in improving validity and reliability of survey instruments (Brewerton and Millward, 2001).

5.6.2 Distribution and collection of the questionnaires

The research plan was subjected to review and approved by the University's Ethics Committee to ensure that it met with the ethical standards for research procedures (see Appendix A for ethics approval letter). After permission to access participants in the audit firms was obtained, a package was given to participants, which consisted of the general instructions letter (Appendix B), a cover letter and attached survey questionnaire (Appendix C), an informed consent form (Appendix E) and a self-addressed envelope for returning the questionnaires. The instruction and cover letters provided general guidelines for team leaders on how to develop a unique survey team code, where individuals in the team would use that code to put on the completed questionnaire. This guarantees anonymity and assists in matching individual and team responses in the data analysis stages.

Given the sensitive nature of the research and the need to obtain full co-operation from participants, the cover letter also outlined 1) the purpose for the study, 2) the importance of the research for the respondent and the profession, 3) instructions for its administration, 4) the assurance that auditors' anonymity will be maintained, 5) that participation will be completely voluntary, 6) that they have been randomly selected, and 7) that their responses would be kept completely confidential.

In an attempt to promote the credibility of the researcher and the principle of voluntary participation, informed consent forms, detailing the nature and purpose of the research, were given to participants as a means for encouraging high levels of participation. As a result, deception was not used in this research because information

on the nature of instrument and the study was provided to each participant to ensure that they had a conscious awareness of what the study was seeking to accomplish. Since the instrument reflects the extent to which an auditor will engage in reporting illegal acts or questionable behaviour, auditors may be at risk of psychological harm or disbarment from the profession, if presented with disturbing or negative results. The onus is on the researcher to ensure that such an occurrence does not manifest because of the potential risk it poses for the participants.

The partners in the audit firms and ICAB were contacted to obtain permission to distribute the questionnaires. Given that access to auditors is normally restricted, convenient samples (non-probabilistic) are sometimes the best means to gain participation (Buchan, 2005, p. 170). As a result, the partners arranged a convenient time for the researcher to come in, when all relevant team members were present in the office (and not in the field). The respondents placed the completed questionnaires into sealed envelopes, which were personally collected by the researcher. This researcher distributed 500 questionnaires to the audit firms in the sample. These questionnaires were initially distributed to the population of audit firms, which included the four large accounting firms (with 295 audit staff) and 14 small and medium size firms (with 89 audit staff), as well as 117 other sole practitioners drawn from a list provided by ICAB. Responses from individual auditors (sole practitioners) who had less than 3 staff members in their offices were later excluded from the sample based on the need to measure the impact of team factors. The questionnaires were administered by the researcher when the majority of each team was present. As a result, the researcher had to visit most of the audit firms on several occasions.

A total of 268 completed questionnaires were received. An examination of the completed questionnaires led to 42 questionnaires being dropped as unusable, thus

resulting in a final usable 226 responses for analysis. Of the 226 completed responses, 179 out of 295 were received from the large firms, representing an actual response rate of 60.7%, and 47 out of 89 were received from the small firms, representing an actual response rate of 52.8%. Thus, the sample is approximately representative of the size and distribution of audit firms in Barbados. Statistical tests showed that there were no significant differences between responses of audit staff from the large and small firms. The possibility of non-response bias was checked by comparing early and late respondents, using Armstrong and Overton's (1977) approach, which assumes that late respondents share similar characteristics to non-respondents. Independent samples t-tests highlighted that there were no statistically significant differences between early (n = 161) and late respondents (n = 65) on any of the independent and dependent variables. This result and the relatively high response rate achieved suggest that non-response bias is not likely to influence the survey results. Thus, these results are generalisable to the population of interest.

5.7 Questionnaire and scenario design

The first part of the study is of a cross-sectional nature, and used a survey questionnaire. This selection was informed by the flexibility and popularity of survey methodology in the relevant literature (Flannery and May, 2000; Chiu, 2002). The proposed research has a hypothesis-testing orientation which involves examining the effects of several variables on auditors' whistle-blowing intentions. Surveys provide a useful means of capturing a large number of variables from a large sample or group of participants (Babbie, 2004). The study also required a large representative sample size, and surveys are usually applied in situations where random sampling is employed.

Given the heavy reliance on parametric statistical techniques to test the research hypotheses, large samples derived from cross-sectional surveys are important.

The questionnaire presented to respondents was accompanied by a cover letter which sought their consent and assistance in completing the attached instrument. The letter clearly stipulated the purpose and procedure of the study. Respondents were assured that confidentiality and anonymity would be maintained as information provided will have no identifying details. Respondents were allowed to make informed decisions about their participation and about their right to withdraw at any time. Information with regards to data collection was also provided to further reassure respondents that every effort was being conducted to maintain anonymity and confidentiality.

The instrument was divided into six sections and each section was further broken down into subsections addressing various issues (see Appendix C). The first section of the questionnaire measured desired moral approbation from others and from oneself (12 items). Section two of the questionnaire measured independence commitment (4 items), perceived organizational support (9 items), team norms (5 items) and group cohesion (5 items). Sections 3 and 6 presented three ethical scenarios which depicted distinct situations of ethical breaches where an auditor was reported to commit a particular unethical action within an organizational setting, i.e. the audit firm. Participants were asked to rate actions depicted in each of the three scenarios based on the following variables: 1) perceptions of moral intensity: probability of effect to financial statement users, probability of discovery, level of disciplinary action and seriousness, 2) personal cost of reporting, 3) personal responsibility for reporting, 4) attitudes toward whistle-blowing, 5) perceived behavioural control and 6) whistle-

blowing (reporting) intentions.[17]   Section 4 measured social desirability bias and section 5 required demographic data on respondents.

5.7.1 Auditing scenarios

Alexander and Becker (1978) argued that the use of scenarios "helps to standardize the social stimulus across respondents and at the same time makes the decision-making situation more real" (p. 103).   According to Ferris, Dulebohn, Frink, George-Falvy, Mitchell and Matthews (1997), the scenario approach involves a description of a hypothetical situation, and the subject is required to respond by placing himself or herself as an actor in the situation. Given the difficulties of gaining access to subjects and observing actual ethical or unethical behaviours, ethics research has shown that scenarios are commonly used, especially in the areas of accounting and marketing research (Silver and Valentine, 2000; Sweeney and Roberts, 1997). The study utilized three scenarios, which were specifically related to auditing and accounting issues (see instrument). The scenarios (vignettes) used in this study were selected from previous accounting and auditing research with dilemmas most likely to be faced by the accounting profession. Scenarios one, two and three were adapted from Rau and Weber (2004), Shafer, Morris and Ketchand (1999) and Kaplan and Whitecotton (2001) and Curtis (2006) respectively.

Based on Kaplan and Whitecotton's (2001) and Schultz et al.'s (1993) arguments, respondents must be aware or cognizant that some questionable or unethical act has occurred for the reporting intention to be triggered. Schultz et al. (1993) argued that "awareness obviously must precede any behavioural response" (p. 78). Thus, the scenarios have been adapted to give respondents this level of awareness. The scenarios

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[17] Subjective norms and ethical intentions were introduced in the questionnaire, but were not tested in the current study. These variables will be considered in future research.

were varied, based on the nature of the issue as well as the person who is being reported on (i.e. partner or manager). In addition, these scenarios have been used in prior studies which support their construct validity. These scenarios captured the factors that are likely to influence the reporting of wrongdoing. Each scenario investigated variables which were categorized as perceived moral intensity, attitudes toward whistle-blowing, perceived behavioural control, personal cost of reporting and personal responsibility for reporting and whistle-blowing (reporting) intentions.

Scenario 1, which was adapted from Rau and Weber (2004), highlighted a violation of the principle "Integrity" of the IFAC's Code of Ethics. The case depicted the actions of a junior auditor, who discovered perceived illegal activities being undertaken by a manufacturing company, and subsequently approached the engagement partner (Tom) of the company with his concerns and presented documentation in support. It was later discovered that the papers had been shredded and no further action was taken.[18]

Scenario 2, which was adapted from Shafer et al. (1999) highlighted a direct violation of IFAC's principles of objectivity and integrity. In this scene, Paul Smith, the audit senior, is aware of a disagreement between an important client of the firm (Simpson), and a partner of the firm (Ellis), concerning the sufficiency of the allowance for doubtful accounts. Due to the client's perceived worth to the audit firm, it was discovered that Ellis accepted the recorded allowance of $100,000 rather than the best estimate of $300,000, and provided an unqualified (clean) audit opinion on the financial statements.

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[18] Scenario 1 was utilised in the quantitative data analysis phase of this thesis, based on preliminary testing and comparison with the other scenarios on the research instrument. Preliminary testing revealed that there was no significant variability in the responses to the three scenarios. The possibility exists that the act of whistle-blowing overshadows the wrongdoing.

Scenario 3 entitled "Modern Appliances", which was adapted from Kaplan and Whitecotton (2001) and Curtis (2006, pp.198-199) addressed the issue of impairment of independence. In this scenario, a senior assigned to an audit engagement with the company, Modern Appliances, was provided information by the assistant financial controller, that the audit manager (Michael Jenkins) was offered the position of financial controller of the said company. It was disclosed that Mr. Jenkins is still in the process of contemplating whether he will accept or decline the offer, and in the meantime, continued in his capacity as audit manager.[19]

5.7.2 Measurement of dependent variables

5.7.2.1 Dependent variables - Whistle-blowing (reporting) intentions

Whistle-blowing intentions refer to the likelihood that a respondent will disclose unethical organizational practices of a member of his or her organization. In the current study, whistle-blowing intentions was measured by asking respondents to indicate how likely they would be to report actions depicted in the three abovementioned scenarios to internal and external targets. The study adapted a scale used by Park and Blenkinsopp (2009) to measure internal and external whistle-blowing intentions. Each whistle-blowing target (internal or external) was measured using four statements, which required the respondent to state whether they would report the questionable acts. A sample statement for the internal targets was "I would report **Tom's** act to the appropriate persons within the audit firm." A sample statement for the external targets was "I would report **Tom's** act to the appropriate authorities outside of the audit firm". These statements were rated using a 7-point Likert scale, which

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[19] Consistent with prior studies (e.g. Curtis, 2006), respondents in this study were aware that the ethics rulings (similar to Rule 101 of the AICPA Code of Professional Conduct on Auditor Independence) requires that the auditor should not be involved in the audit engagement, until the job offer has been declined or is not being considered to avoid impairing objectivity and integrity (AICPA, 1988).

ranged from 1 = not at all to 7 = very much. Higher scores indicate higher intentions to report the wrongdoing within a particular scenario. The Cronbach's alphas for internal and external whistle-blowing measures were .91 and .88, respectively.

5.7.3 Measurement of independent variables

5.7.3.1 Attitudes toward whistle-blowing

Ajzen and Fishbein (1980) defined attitude as an assessment of the degree of favourableness of an object, i.e. a behaviour. Using Park and Blenkinsopp's (2009, pp. 549-550) scale, attitudes toward whistle-blowing were measured by asking the respondent "how true do you think that the following statements are with regard to you reporting **Tom's** act of shredding the papers in audit firm" with respect to five statements that covered the salient consequences of an auditor's reporting of wrongdoing or questionable acts in an audit firm. The five salient consequences of an auditor's whistle-blowing were: a) preventing harm to the audit firm, b) controlling unethical behaviour, c) enhancing the interest of the public, d) performing an employee's duty, and e) moral satisfaction (Park and Blenkinsopp, 2009, p. 550).

Respondents were also required to evaluate the importance of each of the five consequences, by responding to the question, "If you reported Tom's action, how important do you think the following consequences would be to you?" The salient consequences of reporting and the importance of those consequences were measured using a seven-point Likert-type scale. To measure the consequences of reporting, the scale ranged from 1 = not very true to 7 = very true, and to measure the importance attached to these consequences, the scale ranged from 1 = not very important to 7 = very important. Thus, attitudes toward whistle-blowing was derived by multiplying each salient consequence by its related importance, and then summed to obtain an

overall attitude score, in which higher scores indicate more positive attitudes. The Cronbach's alpha for this scale was .82.

5.7.3.2 Perceived behavioural control

Using Park and Blenkinsopp's (2009, pp. 550-551) scale, perceived behavioural control was measured by testing the control factors and perceived power. Control factors contained four statements that tapped into the perceived difficulties that the individual is likely to encounter in reporting. The four control factors were measured as follows: a) the audit firm's hindering or ignoring the reporting, b) difficulties likely to be faced when reporting, c) reporting would not make a difference, and d) retaliation from the audit firm. The perceived power of the above control factors (4 items) was measured by asking the respondents to rate the importance of the four control factors. Consistent with Park and Blenkinsopp's (2009) approach, the control factors were rated on a seven-point Likert-type scale ranging from 1 = not likely to 7 = very likely, and the perceived power items by a scale which ranged from 1 = not very important to 7 = very important. Thus, perceived behavioural control was derived by multiplying each perceived control factor by its related perceived power. The resulting product scores for each of the four factors were summed to form a composite score.

Respondents were asked to determine the difficulties in whistle-blowing, with lower responses indicating higher perceived behavioural control. Similar to Park and Blenkinsopp (2009), the survey was designed in such a way since respondents seem "to find it easier to gauge difficulty rather than ease of reporting" (p. 551). For data analysis, responses were recoded so that higher scores indicate higher perceived behavioural control. The Cronbach's alpha for this scale was .81.

5.7.3.3 Desired moral approbation

Two scales adapted from Ryan and Riordan (2000) were used, one measuring moral approbation from others (DMA-O) and one measuring moral approbation from self (DMA-S). To measure desired moral approbation, respondents were asked to indicate the extent of their agreement with each item on a 7-point Likert type scale (1 = completely disagree to 7 = completely agree). The DMA-O has been found to comprise two dimensions: Praise and Blame. The Desired Moral Approbation from Others-Praise subscale of this measure indicates the level of desired praise from others regarding moral actions, and the Blame subscale indicates the extent to which individuals desire to avoid blame from others regarding immoral actions.

To capture the desire for moral praise from others, 5 items from the original 9-item scale were selected, given that they loaded highly in the original study by Ryan and Riordan (2000). The amended five-item subscale contains sample questions such as "I want others to think that my decisions are ethical." In this current study, the subscale had a Cronbach's alpha of .86. The desire to avoid blame was captured using 3 of the 8 original items for the blame subscale, that were found to load highly on the main factor in the study by Ryan and Riordan (2000). A sample item was "I do not want to be criticized when I do not do the right thing." In this current study, the Cronbach's alpha for the subscale was .83.

The DMA-S scale measures the degree of approval desired from oneself. The original scale contained 8 items. Again, 4 of the 8 items that loaded highly in Ryan and Riordan (2000) study, were selected. A sample item was "I do what is right, no matter what anyone else thinks." In this current study, the Cronbach's alpha for this subscale was .85. The Cronbach's alpha for the overall scale was .80.

175

5.7.3.4 Independence commitment

Independence commitment was measured using four items derived from a measure from Gendron et al. (2006). The responses for individual items used a 7-point Likert type scale to rate each statement from 1 (completely disagree) to 7 (completely agree). The items for this construct were refined, based on comments in the pilot stages. A sample item for this scale was "I believe that independence is one of the main foundations of the accounting and auditing profession." Scores on individual items were summed to form an overall score, in which higher scores indicate higher levels of independence commitment. The Cronbach's alpha for this scale was .91.

5.7.3.5 Personal responsibility for reporting

Personal responsibility for reporting was measured using Schultz et al.'s (1993) single item scale. This scale uses a 7-point Likert scale, ranging from 1 = very low to 7 = very high. For example, a sample item used was "please assess your personal responsibility (i.e. duty or obligation) for reporting **Tom's** act of shredding paper."

5.7.3.6 Personal cost of reporting

Schultz et al.'s (1993) single-item scale was used to measure the personal cost of reporting (Kaplan and Whitecotton, 2001). This scale uses a 7-point Likert scale ranging from 1 = very low to 7 = very high. The item was "please assess the personal costs to you as an audit staff person (i.e., trouble, risk, discomfort) of reporting **Tom's** act of shredding papers."

5.7.4 Measurement of moderating variables

5.7.4.1 Perceived moral intensity

This study utilized two of Jones' (1991) dimensions of magnitude of consequences and probability of effect, and Schultz et al.'s (1993) single-item scale for perceived seriousness. Taylor and Curtis (2010) used the perceived seriousness scale to measure moral intensity in their study. Coram et al. (2008) operationalised moral intensity using probability of effect and magnitude of consequences with three questions, which were used in this study. For probability of effect to users of financial statements, respondents were asked to assess the likelihood of the performance of each unethical act leading to an incorrect audit opinion. To test for probability of effect on auditors (the probability of detection), respondents were again asked to assess the likelihood (probability) that the unethical act will be discovered by higher management.

To measure potential magnitude of consequences to the auditor, Coram et al. (2008) operationalised it as the penalty associated with the act being discovered. Thus, using Coram et al.'s (2008) scale, magnitude of consequences was measured by asking respondents to rate the statement "if the act was discovered, what level of disciplinary action an auditor would face for committing the same act?" Finally, respondents were asked to assess the seriousness of the act. These four questions were measured using a 7-point Likert type scale which ranged from 1 = very low to 7 = very high. Thus, perceived moral intensity was derived from averaging the four items to develop a composite score, where higher scores indicated higher levels of perceived moral intensity. The Cronbach's alpha for this scale was .92.

5.7.4.2 Perceived organizational support

Perceived organizational support was measured using Eisenberger, Cummings, Armeli and Lynch's (1997) 8-item short version of Eisenberger et al.'s (1990) scale. Eisenberger et al. (1997) had selected 8 of the original 36 items, which loaded highly on the main factor. Eisenberger et al. (1997) reported high internal reliability (Cronbach alpha = .90). Based on comments arising from the pilot stage, an additional question was introduced to test the perceived level of ethical support that is valued by the organization. This item is "my organization values my integrity." Thus, a revised 9-item scale was used. Other sample items on this scale were "my organization really cares about my well being" and "help is available from my organization when I have a problem." Respondents were asked to indicate the extent of their agreement on each of the eight items on a 7-point Likert-type scale (1 = completely disagree and 7 = completely agree). Negatively worded questions were reverse coded. Each respondent's scores across the nine items were summed and averaged to form one composite perceived organizational support score. In this study, the Cronbach's alpha for this scale was .87.

5.7.4.3 Group constructs

5.7.4.3.1 Team norms

Team norms were measured and adapted from a scale developed by De Jong et al. (2005). The original scale consists of four items scored on a 7-point Likert scale, ranging from 1 (completely disagree) to 7 (completely agree). Each item was adapted to the auditing context by using the term "audit team." A sample item was "our audit team members share common expectations about the behaviour of all work group members." To test the ethical norms of the audit team and to ensure that the construct is pertinent

to the study, an additional item was introduced. This item was "our audit team members share common expectations that the behaviour of the group will be ethical." Scores were aggregated and averaged across the five items in the scale to form an overall measure of team norms. The Cronbach's alpha for this scale was .88.

5.7.4.3.2 Group cohesion

Group cohesion was measured using a 5-item Work Group Cohesion Index developed by Price and Muller (1986). Price and Mueller's (1986) index required the respondent to assess the degree to which team members are trustworthy, helpful, friendly, personally interested in one another, and look forward to being with other group members. Each item was measured by a 7-point Likert-type scale, ranging from 1 = not at all to 7 = very. Each item in the scale was adapted to the auditing context by using the term "audit team." A sample item was "to what extent are people in your audit team friendly?" Scores were aggregated across these five items to form an overall measure of each respondent's perceptions of the level of cohesiveness, on which higher scores demonstrate higher levels of group cohesion. The Cronbach's alpha for this scale was .92.

5.7.4.3.3 Measuring group responses at the individual level

This study sought to look at the impact of groups on whistle-blowing intentions. Han (2003) critically looked at different approaches and provided arguments for and against the measurement of the group construct. There are several approaches to measuring group level constructs that have inherent weaknesses. For example, there is the simple aggregation of responses within a group to justify the aggregation of individual perceptions (Guzzo, Yost, Campbell and Shea, 1993). Another approach can involve

obtaining a team consensus rating, after the team discussed the items using one questionnaire. This approach has been argued to be problematic for groups to discuss norms and values collectively (Gibson, Randel and Earley, 2000). Earley (1993) suggested another method which requires each team member to rate the collective belief of other members of the team.

Given these arguments, this study uses Guzzo et al.'s (1993) method, where individual team members rate their perceptions of the level of their team's norms and cohesiveness, and the team score is calculated by averaging the responses of individual team members. This approach also assumes that other team members are fully aware of the team's norms and values, and may be considered appropriate for measuring group level constructs (Han, 2003).

5.7.5 Social desirability bias

Jones et al. (2003) raised a concern of social desirability bias in researching ethics. Given that this research utilised self-report data, it is possible "that such reports may be biased by tendencies to furnish socially desirable responses and to deny holding socially undesirable attitude or performing socially undesirable behaviour" (Beck and Ajzen, 1991, p. 291). It is recognized that some respondents may tend to underreport undesirable (unethical) behaviours and overreport desirable (ethical) behaviours.

Paulhus' (1984, 1989) Balanced Inventory of Desirable Responding (BIDR) was used to measure the tendency for social desirability response bias. Paulhus' scale comprised two dimensions: impression management (IM) and self-deception. Prior research has used the IM scale to measure social desirability response bias (Trevino, Butterfield and McCabe, 1998; Shafer, 2008). This current study utilised Paulhus' (1989) IM scale to control for the influence of social desirable response bias, which

may exist in research on ethical and whistle-blowing behaviour (Paulhus, 1984; Shafer, 2008). The impression management scale portrays the individual's attempt to present the most positive social image of himself or herself.

The 20-item scale included 10 reverse-scored items. Sample items included "I sometimes tell lies if I have to" and "I never cover up my mistakes." Firstly, the negatively keyed items were reversed. Then, one point was recorded for each extreme answer (either 6 or 7) to an item on the IM scale. The IM scale can have total scores ranging from a low score of 0 to a high score of 20, where high scores are reflective of those respondents who are prone to exaggerate responses. Thus, higher scores represent higher social desirability. The Cronbach's alpha for this scale was .75.

5.7.6 Measurement of demographic variables

The study required demographic data such as gender, organizational position, highest level of education attained and professional qualifications. Respondents were further asked to provide information on age, years employed in the organization, work experience, length of time in current team and numbers of persons in the team, measured as continuous variables.

5.8 Quantitative data analysis strategies

This section deals with the statistical data analysis techniques used in testing the hypotheses.

5.8.1 Descriptive statistics

The data was analyzed using SPSS to explore the descriptives (means and standard deviations) and correlations (using Pearson's bivariate correlations) among the variables in the study.

5.8.2 Individual and group analysis

This study implemented a cross-level design, which focussed specifically on the moderating effect of perceived organizational support, team norms, group cohesion, moral intensity on the relationships between individual-level factors (attitudes, desired moral approbation, perceived behavioural control, personal responsibility for reporting, personal cost of reporting and independence commitment) and external auditors' whistle-blowing intentions. Moderators such as perceived organizational support and perceived moral intensity are tested at the individual level (see hypotheses 2 and 5). Group level moderators such as group cohesion and team norms were measured, by using auditors' self-reports (from the individual's perspective) about their perceptions of the level of cohesiveness and norms in their audit teams. The individual responses for each audit team were aggregated to form a composite score for the team (see hypotheses 3 and 4). Aggregation of employee perceptions is a justifiable way to assess contextual variables (Rousseau, 1985; Robinson and O'Leary-Kelly, 1998).

This study utilised appropriate analytical strategies, given the fact that some of the hypotheses were cross-level in nature. Hypotheses 3 and 4 relate to multilevel data where individuals were nested in groups or teams. These hypotheses sought to test the moderating effect of higher level variables (i.e., the team) on the relationship of individual level variables. Prior research has assigned group scores to individual members within the specific group, and utilised ordinary least squares (OLS) regression

at the individual level to test the hypothesised relationship (Mossholder and Bedeian, 1983; Bedeian, Kemery and Mossholder, 1989; James and Williams, 2000).

The use of OLS creates aggregation and disaggregation biases. For example, the disaggregation approach assigns the same group score to each group member and the analysis is conducted at the lower individual level. This violates an OLS assumption of the independence of random errors. The aggregation approach involves aggregating individual scores to form group level measures and performing analyses at the group level. This approach suffers from drawing inferences on relationships among aggregated data. Several authors have argued that hierarchical linear modelling (also known as HLM or random coefficient modelling) is more appropriate for analysing multilevel data (Bryk and Raudenbush, 1992; Bryk, Raudenbush and Congdon, 1996; Hofmann, 1997; Hofmann, Griffin and Gavin, 2000). HLM allows the investigation of both lower and higher level units' variance of the dependent variable, while performing the appropriate analysis of the independent variables at the required level of analysis.

However, there are certain conditions that need to be satisfied in order to run HLM. Firstly, one should conduct a one-way ANOVA to test the null model on the dependent variables to assess whether there was significant between-group variance (τ_{00}) in these measures (Hofmann, 1997). Furthermore, Bliese (2002) suggests that in testing HLM models, one should first determine if the variability in the intercepts across groups is significant. This current study found that the dependent variables did not present significant between-group variance. Thus, Bliese (2002) argues that "If τ_{00} does not significantly vary, there may be little reason to use random coefficient modelling since simpler OLS modelling will be adequate" (p. 419). Gavin and Hofmann (2002) argued that HLM and the traditional approach (i.e., OLS) to cross-level analysis are conceptually somewhat similar.

Similar to arguments made by Hofmann, Morgeson and Gerras (2003), it was felt that the estimation of HLM models might be problematic, given that the teams in the current study were relatively small (averaging 3 to 5 audit team members). James and Williams (2000) argued that the use of HLM can be a complex process and "simpler is sometimes better" (p. 423). James and Williams (2000) further suggested that cross-level regression (OLS) is more appropriate for small sample nested designs. As a result, Gonzalez and Denisi (2009) utilised ordinary least squares regression to test their cross-level hypotheses. Thus, moderated multiple regression (OLS) was used to test the hypotheses in this thesis. [20]

5.8.3 Moderating multiple regression analysis

Moderated multiple regression (MMR) has been used for detecting the moderating effects of variables (Cohen and Cohen, 1983; Baron and Kenny, 1986). MMR seeks to examine how the relationship between two variables (e.g., A, the independent and B, the dependent) varies, depending on the value of a third variable C (e.g., a moderator). The independent, dependent and moderating variables were found to be normally distributed and linear. To test hypotheses H1a to H1f, the main effects of hierarchical multiple regression were used. Based on Cohen and Cohen's (1983) recommendation for testing the interaction effects of the moderators (H2, H3, H4 and H5), this study used hierarchical multiple regression analysis to separately test the moderating effects of perceived organizational support, perceived moral intensity, group cohesion and

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[20] Following the approaches of Hofmann et al. (2003) and Gonzalez and Denisi (2009), HLM analysis was also conducted using HLM6 (Raudenbush, Bryk, Cheong and Congdon, 2004), to compare with OLS regression results used in this study. Twenty-four models, similar to OLS regression models, were run. To test the moderating effects of group cohesion and team norms on the relationship of the individual level variables, 'slopes-as-outcomes' analysis was performed using the group level constructs as level 2 variables. For example, a level I model was in the form of: $INTWB = ß_0 + ß_1 (ATTITUDES) + r$. Level 2 models were in two forms: 'Intercepts as outcomes' - $ß_0 = \gamma_{00} + \gamma_{01} (COHESION) + u_0$ and 'slopes-as-outcomes' - $ß_1 = \gamma_{10} + \gamma_{11} (COHESION) + u_1$. Thus, using 'slopes-as-outcomes' analyses, HLM results for fixed parameter estimates indicated significant moderating effects for the same variables as the moderated multiple (OLS) regression analyses.

team norms on the relationships between the independent variables and the dependent variables. Before the regression analysis was performed, the predictor variables (both independents and the moderators) were zero-centered, based on the recommendation of Aiken and West (1991). The mean-centering of these variables will minimize multicollinearity problems and assist in making meaningful interpretation of the results (Aiken and West, 1991). Given that several independent variables were highly correlated, variance inflation factor (VIF) scores for all models were assessed and found not to exceed 2, thus indicating that the coefficients were not significantly biased by multicollinearity.

5.8.4 Power analysis

Given that hierarchical multiple regression was being used as the analysis technique, it was important to determine the required sample size. The literature has provided several rules of thumb in determining the adequate sample size required for regression analysis (Field, 2009; Green, 1991). For example, Green (1991) suggested that to test the overall fit of the regression model, the minimum sample size requirements may be calculated by the formula $50 + 8m$, where m is the number of predictors (e.g. in this study, there are 10 predictors), thus yielding a sample size of 130. Green (1991) also suggested that to test individual predictors, one should use the formula $104 + m$, where m is the number of predictors, resulting in a sample size of 114. Field (2009) have argued for benchmarks of 10 and 15 cases of data per predictor in the model, which would result in a range of 100 to 150 cases. An a-priori power analysis was done, using G*Power (Faul and Erdfelder, 1992), which highlighted a required sample size of 102 subjects. Another a-priori calculation of required sample size was performed by setting alpha level (.05), number of predictors (10), effect size (0.15), and desired

statistical power level (0.80). This test provided a minimum sample size requirement of 118. Therefore, based on the above number of sample size calculations, the actual total sample size of 226 obtained in this study was more than sufficient.

5.9 Second phase – Interviews with auditors

In the first phase of data collection, positivism was used to test the hypotheses. However, positivism might not be able to capture all underlying factors affecting whistle-blowing. Thus, an interpretivist approach was used to contextualize the findings from the quantitative phase. Interpretivism focuses on the researcher's attempt to gain knowledge through the eyes of the individual who observes the phenomenon and seeks to understand how meaning is constructed to the individual's social life (Neuman, 2003). In essence, the researcher observes and interacts with the individual to understand and share his or her experiences. The researcher describes and interprets the individual's experiences. However, these findings are not generalisable.

Ontologically, interpretivists see reality as being integrally linked to the individual observer since individuals experience different realities. Epistemologically, interpretivists argue that knowledge is gained through experiences, culture and specific goals (Weber, 2004, p. vi) and is best viewed in its context. Interpretivists view that individuals will react based on their interpretation of the situation, and will not be value free.

5.9.1 Critique of qualitative research methodology

Qualitative research has its advantages over quantitative research. Qualitative research provides the researcher with a more in-depth and richer understanding of some phenomenon. Quantitative research restricts empirical phenomena to numerical

properties, and, as a result, essential information regarding the phenomena is lost in this 'number-crunching' exercise, whereas quantitative research establishes explanations for behaviour, qualitative research reveals the major dynamics and dimensions underlying the behaviour. Another value of qualitative research is based on its flexibility and emphasis on understanding rather than explanation. Brewerton and Millward (2001) argued that qualitative research offers an advantage to the researcher, who wants to understand factors specific to the individual and context and not the general picture. These authors further agreed that by focusing only on the general, quantitative researchers usually miss the essence of the phenomena. Thus, this study used a qualitative approach to investigate the whistle-blowing phenomenon in the auditing context.

5.9.2 Qualitative research design

A unique feature of the current research was its use of a qualitative method to contextualize the findings from the quantitative phase of the research. In order to provide richer analysis to understanding the whistle-blowing phenomenon among auditors, the current study was extended to include interviews among auditors. The study utilized a semi-structured interview schedule, with open-ended questions designed to facilitate or encourage discussions with 18 interviewees and 2 focus groups.

Semi-standardized and focused group discussions were implemented to meet the research objectives. They were instrumental in the exploration of a range of issues concerning the attitudes and experiences of all participants. Semi-structured interviews are appropriate methods used for fully exploring sensitive topics and clarifying queries raised during the actual interview (Babbie, 2004).

5.9.3 Research questions

The research questions to be addressed by this study are:

Research Question 1:   How willing are external auditors to whistle-blow on wrongdoing committed by colleagues in the audit firm?

Research Question 2:   What are the preferred channels of reporting wrongdoing among external auditors?

Research Question 3:   What is the role of individual factors on external auditors' ability to whistle-blow?

Research Question 4:   What is the role of team and contextual factors on external auditors' ability to whistle-blow?

Research Question 5:   What are the perceived consequences of whistle-blowing among external auditors?

Research Question 6:   How can whistle-blowing be increased among external auditors?

5.9.4 The whistle-blowing interview schedule

The interview schedule is shown as Appendix D. The first part of the schedule dealt with demographics such as gender, age, professional experience, qualifications and position held. The second part of the schedule focused on general information about participants' understanding of the term "whistle-blowing", its importance to the audit profession and the perceptions of the whistle-blower (hero or traitor). The third section of the interview schedule sought to explore the factors likely to influence whistle-blowing among external auditors. Specifically, this section looked at key components of the conceptual model. Interviewees were asked about their willingness to report wrongdoing and the influence of individual-level antecedents (attitudes, desired moral approbation, perceived behavioural control, independence commitment, personal responsibility to report and personal cost of reporting) on whistle-blowing. In addition, individuals were asked about their opinions on the influence of moderators such as

perceived moral intensity, perceived organizational support, group cohesion and team norms on whistle-blowing. Further questions were posed to explore the factors likely to encourage and discourage whistle-blowing, and the preferred reporting channels.

Participants were asked if they had ever observed or reported any wrongdoing, and what were the outcomes. Finally, respondents were asked to state the perceived consequences of whistle-blowing on the audit firm, profession and society, and what recommendations could be made to encourage whistle-blowing. The semi-structured interview schedule was given to the participants, prior to the interviews to provide them with the opportunity to reflect on the issues and to make notes.

5.9.4.1 Piloting the interview schedule

The interview schedule was piloted first among 4 practicing auditors and 2 academics to get their views on the content and layout. After receiving feedback, the interview guide was amended. Then, it was subjected to further queries from the supervisors of this study. The comments were then incorporated into the final schedule.

5.9.5 Selection of sample of interviewees

Due to the ethical sensitivity of the research topic, respondents were recruited by purposive sampling method on a voluntary basis. The inclusion criterion stipulated that the sample was willing to be interviewed, worked in an audit firm, and in audit team(s). It was intended to select a wide cross section of respondents from the different levels of the audit firm's hierarchy, as well as specific interest groups such as regulators to gain varying perspectives on whistle-blowing. Thus, purposive sampling was appropriate to select members from these groups (Neuman, 2003). Except for the two regulators, the qualitative sample was drawn from respondents in the quantitative phase who were

willing to be interviewed. As a result, twenty-four interviews of auditors in the form of 16 individual interviews and 2 focus groups were obtained, representing 10.6% of the quantitative sample.

5.9.6 Conduct of the interviews

Interviews were conducted by face to face meetings at the offices of some of the participants and the interviewer's office, at times convenient to the participants. This approach was necessary not only as a matter of convenience, but to ensure that participants felt comfortable sharing personal information with the researcher.

Trustworthiness

Qualitative research requires an element of trustworthiness from all concerned. To maximize trustworthiness and credibility of data collected and reduce researcher's bias, counselling skills such as probing, reflecting and clarifying were utilised to ensure that the findings were reasonable interpretations of the auditors' experiences (Parahoo, 1997). Mayes and Pope (1995) suggested that reliability is strengthened, when two or more skilled researchers are involved in the analysis process where comparisons can be made of emerging themes and codes and categories.

Moreover, a study's validity may be enhanced when evidence is sought that refutes and supports the study's objectives and research questions (Marshall and Rossman, 1995; Silverman, 2000). In addition, data collected will be held in the possession of the researcher for at least three years. After three years, the field notes will be shredded by the researcher.

Participants were reassured that the highest level of confidentiality would be maintained and reminded about their right to terminate the interview should they

experience any feelings of discomfort. In addition, participants were informed that the research assistant, accompanying this researcher, was a trained psychologist who was competent to handle any situation that may arise. This precautionary measure was not needed, as none of the participants experienced any psychological distress. To guard against harming or infringing on the rights of participants, the issues of confidentiality and consent were discussed, since research ethics require the researcher to obtain informed consent and adequately inform the participants on the purpose and nature of the study (Polit and Hungler, 1991). All participants opted for confidentiality of their identities to be maintained and waived the signing of consent forms.

The respondents consented to have their information audio taped. Notes were also taken during the interviews. Two focus groups were also conducted. The interviews and focus group sessions typically lasted between 75 to 90 minutes. The preferred choice of locations for where interviews were to be conducted for most participants was away from their offices. This informal approach was intended to encourage participants to speak freely and completely about their behaviour, experiences and attitudes. Each interview was conducted and recorded by the researcher and the research assistant to reduce potential biases, and to record the relevant information from participants during the sessions.

5.9.7 Characteristics of the sample of interviewees

The data for this sample were collected from various external auditors at different levels (regulators, practitioners, partner, audit managers, audit seniors, junior staff and staff accountant) drawn from small to large firms, as well as the legal fraternity and accounting body within Barbados. The sample comprised 18 individual interviews and 2 focus groups, resulting in a total sample of 13 males and 13 females, who shared their

experiences and perceptions toward whistle-blowing in Barbados. The age of the sample ranged from 20 to 59 years. The respondents were all qualified and holders of bachelors' degrees and professional certificates (LLB, ACCA, CGA, FCCA, CA, CIA, ACIS, CFSA, CMA) with years of professional working experience, ranging from 2 to 15 years. The demographic characteristics of the sample are shown in Table 9. Each participant was identified by a unique code, BDWBXX, where BD means Barbados, WB stands for Whistle-blowing, and XX represents a two-digit sequential number for each interviewee. The sequential numbers correspond with the chronological order of the interviews (i.e., BDWB01 occurred first, followed by BDWB02, BDWB03 etc.).

5.10 Qualitative data analysis strategies

In Phase 2 of this research, 18 auditors and 2 focus groups were interviewed using semi-structured, open-ended and probing in-depth questions. The data were coded, and subsequently analyzed using narrative analysis techniques that included recurring themes and patterns, key words and phrases, relationships between groups, commonalities and differences (Miles and Huberman, 1994).

The exploration of participants' attitudes and experiences were subjected to thematic analysis and coding strategy (Strauss, 1987). Data analysis was done at the same time as data collection to enable further exploration of emerging themes in subsequent interviews. Coding is the key process in qualitative analysis, which involves classifying or categorizing individual pieces of data coupled with a retrieval system (Neuman, 2003). This makes easier and faster retrieval of material at a later date. Codes were amended as new themes emerged.

Table 9: Participants' demographic data – Interviews and focus groups

Participants' Codes	Gender	Age group	Current Position	Qualifications	Years Exp.	Firm size/type
Regulators						
BDWB01	Male	40-49	Regulator/Attorney-at-Law	LLB	15	Legal/Regulatory
BDWB02	Male	40-49	Accounting Regulator	CGA	16	Accounting Body
Practitioners						
BDWB03	Male	40-49	Practitioner/Auditor	FCCA	20	Small Firm
BDWB04	Male	40-49	Practitioner/Manager	CGA	20	Small Firm
Partner						
BDWB05	Male	30-39	Partner	CA	18	Large Firm
Audit Managers						
BDWB06	Female	30-39	Audit Manager	BSc, CGA,CIA	10	Large Firm
BDWB07	Female	40-49	Audit Director	BSc., FCCA	20	Large Firm
BDWB08	Female	20-29	Senior Audit Manager	BSc, ACIS, ACCA	8	Large Firm
BDWB09	Male	20-29	Audit Manager	BSc, ACCA	7	Large Firm
Audit Seniors						
BDWB10	Male	40-49	Audit Senior	BSc., ACCA CMA	14	Medium Size Firm
BDWB11	Female	20-29	Audit Senior	BSc, ACCA	3	Large Firm
BDWB12	Female	20-29	Audit Senior	BSc, ACCA, CFSA	4	Large Firm
BDWB13	Female	20-29	Audit Senior	BSc, CGA	4	Large Firm
Junior staff						
BDWB14	Female	20-29	Staff Accountant	BSc	2	Large Firm
BDWB15	Female	20-29	Staff Accountant	BSc	2	Large Firm
BDWB16	Female	20-29	Staff Accountant	BSc	2	Large Firm
BDWB17	Male	20-29	Staff Accountant	BSc, ACCA	3	Large Firm
BDWB18	Female	20-29	Staff Assistant	BSc	2	Large Firm
Focus Group 1	Female	20-29	Staff Accountant	BSc	3	Large Firm
	Male	30-39	Audit Senior	ACCA	7	
	Male	40–49	Audit Senior	CGA	6	
	Male	50-59	Audit Manager	CGA	24	
Focus Group 2	Female	20-29	Staff Accountant	BSc	3	Medium Size
	Female	20-29	Staff Accountant	BSc	2	Firm
	Male	30-39	Audit Senior	CGA	6	
	Male	30-39	Audit Manager	ACCA	13	

Note: All references to interview data will use participants' codes stated above; Years Exp = Years of working experience.

Data garnered from participants were partially summarized and key quotes recorded verbatim and in Barbadian dialect. Topics identified were clustered into sets of manageable emerging themes and sub-themes, after reading the data (Neuman, 2003; Babbie, 2004). The above exploratory methodological approach, utilizing thematic analysis and specific coding strategies, allowed for the researcher to gain a better understanding of the phenomenon (i.e. whistle-blowing) under study.

5.11 Conclusion

The current research adopted a triangulated method approach to examine whistle-blowing intentions among auditors. Given that the quantitative-positivistic methodological orientation has been predominantly used in ethics studies, this study used a quantitative survey approach in the first phase. Furthermore, in the second phase, the use of a qualitative approach such as interviews and focus groups, helps to contextualize the findings, and supports the call for more rigorous qualitative methods to be used in behavioural ethics research (Trevino, Weaver and Reynolds, 2006). The proposed research, however, has to be cleverly designed to ensure that the data is captured to fully understand the behaviour under study.

The quantitative research methodology is important since the proposed research focuses on testing various hypotheses on whistle-blowing derived from several theories and models of human behaviour. Quantitative research methodology, compared with qualitative research, is more focused on theory-testing and explanation, which is consistent with the main objectives of the proposed study.

As mentioned before, the appropriateness of the survey research design to the study of whistle-blowing is based on its ability to capture (measure) auditors' behaviours in a natural setting (and not in an artificial setting as in the experimental research design) and its ability to capture numerous variables within a larger sample group to satisfy the hypothesis-testing orientation of the study. Furthermore, it was mentioned that this design is more popular in the ethics and whistle-blowing literature, compared with the experimental research design (e.g. Kaplan and Whitecotton, 2001).

Finally, it was mentioned previously that the proposed design will adopt a qualitative-based method to supplement the quantitative findings. This is important because it has been argued that the combined approach provides a better capture of the

phenomenon under study than a single method (Brewerton and Millward, 2001). This approach is consistent with the concept of triangulation, which is based on the assumption that the use of different sources or methods (questionnaires, interviews and focus groups) provides a more comprehensive picture or assessment of an issue. Indeed, this concern has been echoed in recent whistle-blowing literature (Mesmer-Magnus and Viswesvaran, 2005), where there has been a call for triangulation of research methods in the area of whistle-blowing. The next chapter will present the main results of the study as they relate to the principal hypotheses of the study.

CHAPTER 6: QUANTITATIVE RESULTS

6.0 Introduction

This thesis presents a model on whistle-blowing intentions among external auditors in Barbados. The study used a survey questionnaire to collect the data to test the hypotheses. This chapter presents the results of the findings obtained through the survey instrument and reports the tests of the hypotheses of the proposed conceptual model from Chapter 4. The chapter is organized as follows: firstly, an analysis of the descriptive statistics of the independent and dependent variables is presented. This section provides the means, standard deviations and correlations of the key variables under study. The next section presents the tests of the main effects, as well as the moderating effects of perceived organizational support, group cohesion, team norms and perceived moral intensity on the relationships between the independent and dependent variables. The final section summarizes the key findings on the hypotheses.

6.1 Descriptive statistics

This section presents the descriptive statistics on the independent, moderating and dependent variables in the current study. The dependent variables are internal and external whistle-blowing intentions. The independent variables are attitudes toward whistle-blowing, desired moral approbation, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting. The moderating variables are perceived organizational support, perceived moral intensity, group cohesion and team norms.

6.1.1 Dependent variables - Whistle-blowing (reporting) intentions

Table 10 reports the descriptive statistics for the dependent measures of whistle-blowing intentions to internal and external targets. With respect to internal reporting in scenario one, the mean was 4.96, while the mean was 3.45 for external reporting. [21] Overall, the means indicate that auditors were more likely to report internally with mean responses above the scale midpoints. For internal reporting, the means in this current study are higher than the mean reporting intentions of Kaplan and Whitecotton (2001), who reported means slightly below their 7-point scale (i.e. a mean of 3.8 for the self-reporting measure and a mean of 4.2 for the other auditors reporting measure). However, the respondents in this sample reported means slightly below the scale midpoints when asked whether they would report externally. These results suggest that respondents were more likely to report internally rather than externally. The high internal reporting intentions may suggest that the subjects believe in the internal channel as the preferred option, since there appears to be a general reluctance to report externally. These findings are consistent with Park and Blenkinsopp (2009). However, these low external reporting intentions may raise concerns where there may be serious wrongdoing in the audit firm that may not be satisfactorily resolved internally.

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[21] As previously mentioned in section 5.7.1, this study used scenario 1, which referred to the act of the partner shredding important documents. Due to the lack of significant variability on the scores for the three scenarios in the study, any scenario could have been chosen. However, it was felt that the facts in this scenario closely mirror the Enron case.

Table 10: Descriptive statistics for the dependent variables - whistle-blowing (reporting) intentions

Dependent Variables	Mean	Standard Deviation
Scenario 1		
Internal whistle-blowing (IWB)		
Report it to the appropriate persons within the firm	5.06	1.64
Use the reporting channels inside of the firm	5.08	1.57
Let upper level of management know about it	4.79	1.67
Tell my supervisor about it	4.90	1.70
Overall average	**4.96**	**1.47**
Summed score	**19.84**	**5.88**
Cronbach alpha = .91		
External whistle-blowing (EWB)		
Report it to the appropriate authorities outside of the firm	3.87	1.43
Use the reporting channels outside of the firm	3.70	1.40
Provide information to outside agencies	3.26	1.38
Inform the public about it	2.98	1.46
Overall average	**3.45**	**1.22**
Summed score	**13.80**	**4.86**
Cronbach alpha = .88		

6.2. Independent variables

6.2.1 Attitudes toward whistle-blowing

Table 11 reports the descriptive statistics for the independent measure of attitudes toward whistle-blowing. The table shows the means of the individual items in the scale as well as overall means for outcomes and their evaluation of the scenario. Table 11 shows that the overall means for outcomes and evaluation were on average higher than 5. This may suggest that respondents perceived whistle-blowing as being very important and having positive consequences.

Table 11: Scale items and means for attitudes toward whistle-blowing

Items	Beliefs about the consequences (b)[a] Mean (SD)	Evaluation of the consequences (e) Mean (SD)	(b x e) Mean
Scenario 1			
Prevention of harm to the firm	5.77 (1.46)	6.02 (1.00)	35.17
Control of unethical behaviour	6.19 (0.97)	6.08 (0.97)	38.01
Enhances public interest	5.61 (1.34)	5.47 (1.38)	31.61
One's duty as an employee	5.65 (1.25)	5.84 (1.19)	33.82
Morally appropriate	6.41 (0.97)	6.01 (1.25)	39.06
Average	5.92 (0.80)	5.88 (0.856)	35.30
Overall average			5.04 (1.22)
[a] Cronbach alpha = .82			
A: Sum of (b x e) =177.49			

Note: SD = Standard Deviation

6.2.2 Desired moral approbation

Table 12 presents the means and standard deviations for the desired moral approbation scale. Desired moral approbation from others – praise (DMA - OP) and from self (DMA - S) show means of 5.81 and 5.28 respectively, which were much higher than the scale mid-points of 4. However, for the scale of desired moral approbation from others – blame (DMA - OB), the mean was 3.86, which was slightly below the scale midpoint.

To test for dimensionality, exploratory factor analysis was done on the shortened scale, using principal component analysis, iteration and extraction methods. Table 13 presents the results of the exploratory factor analysis. It was found that items loaded highly on their expected factors and were consistent with Ryan and Riordan's (2000) longer version of the scale.

Table 12: Descriptive statistics for desired moral approbation

Items	Mean	Standard Deviation
Desired moral approbation from others – praise **(DMA - OP)**		
I want others to think that my decisions are ethical.	6.18	1.38
I want others to view me as a moral person.	6.29	1.26
I hope others view my behaviours as ethical	6.16	1.26
I want others to support my decisions on moral issues.	5.59	1.39
I want others to praise my choices in ethical situations.	4.82	1.64
Overall DMA - OP	**5.81**	**1.12**
Cronbach alpha = .86		
Desired moral approbation from others – blame **(DMA - OB)**		
I do not want to be criticized when I do not do the right thing.	4.04	1.94
I do not like others to blame me even when I am in the wrong.	3.57	1.95
I do not like to be criticized for doing something wrong	3.98	1.95
Overall DMA - OB	**3.86**	**1.68**
Cronbach alpha = .83		
*Desired moral approbation from self (*DMA - S)		
I do not care what other people think as long as I know that I have done the right thing	5.38	1.46
I do what I think is right, no matter what anyone else thinks	5.04	1.71
I do not worry about what other people think when I do something that I know is right	5.28	1.58
I do not worry about others' opinions as long as I feel confident about the ethical decisions that I make.	5.42	1.39
Overall DMA - S	**5.28**	**1.28**
Cronbach alpha = .85		
Overall average desired moral approbation	**5.15**	**.89**
Overall Cronbach alpha = .80		

Table 13: Exploratory factor analysis for desired moral approbation

Items	Factors		
	1	2	3
I want others to view me as a moral person.	.887		
I want others to think that my decisions are ethical.	.862		
I hope others view my behaviours as ethical.	.853		
I want others to support my decisions on moral issues.	.790		
I want others to praise my choices in ethical decisions.	.639		
I do not worry about what other people think when I do something that I know is right.		.874	
I do what I think is right, no matter what anyone else thinks.		.832	
I do not care what other people think as long as I know that I have done the right thing.		.797	
I do not worry about others' opinions as long as I feel confident about the ethical decisions that I make.		.780	
I do not like others to blame me even when I am in the wrong.			.906
I do not like to be criticised for doing something wrong.			.842
I do not want to be criticised when I do not do the right thing.			.820

6.2.3 Perceived behavioural control

Table 14 shows the range of values for perceived behavioural control. These values ranged from 5.91 to 6.21 in respondents' beliefs in their degree of control. Respondents' evaluation of these controls was slightly lower than their beliefs. Overall, respondents felt that they had a moderately high level of control over their behaviour (M = 4.57).

Table 14: Scale items and means for perceived behavioural control

Items	Belief in control factors (bcf) [a] Mean (SD)	Evaluation of control factors (ecf) Mean (SD)	(bcf x ecf) Mean
Scenario 1			
The audit firm's hindering reporting (or ignoring it)	6.21 (1.01)	5.13 (1.66)	32.11
Difficulties to be faced in the process of reporting	5.99 (1.04)	4.85 (1.81)	29.31
Reporting likely to be ineffective in ending the wrongdoing	6.02 (1.06)	5.56 (1.69)	33.90
Retaliation by the audit firm	5.91 (1.09)	5.47 (1.51)	32.58
Average	6.03 (0.79)	5.25 (1.40)	32.03
Overall average			4.57 (1.43)
[a] Cronbach alpha = .81			
PBC: Sum of (bcf x ecf) = 127.90			

Note: SD = Standard Deviation

6.2.4 Independence commitment

Table 15 reports the descriptive statistics for independence commitment. The overall mean for independence commitment is 4.93, which is higher than the scale midpoint of 4, and indicates that auditors in the sample perceived themselves as being highly independent. This finding was similar to Gendron et al.'s (2006) study.

Table 15: Descriptive statistics for independence commitment

Items	Mean	Standard Deviation
I believe that independence is one of the main foundations of the accounting and auditing profession.	5.08	1.49
I believe that the profession's independence requirements need to be strictly enforced in every sphere of activities in which public accounting firms are involved.	4.97	1.42
I think the profession would be more highly regarded if the profession's independence requirements for auditors in public practice were more rigorous.	4.83	1.414
I think that stakeholders in general (e.g., business community) would benefit if the profession's independence requirements in public practice were more rigorous.	4.86	1.474
Overall average independence commitment	**4.93**	**1.29**
Summed independence commitment score	**19.74**	**5.15**
Cronbach alpha = .91		

6.2.5 Descriptive statistics for personal cost of reporting and personal responsibility for reporting

Table 16 shows the means and standard deviations for personal cost of reporting and personal responsibility for reporting. It was found that respondents perceived a mean below the scale midpoint (M = 3.26) for personal cost of reporting and an above average mean (M = 4.76) for personal responsibility for reporting**.**

Table 16: Descriptive statistics for personal cost of reporting and personal responsibility for reporting

Items	Mean	Standard Deviation
Scenario 1		
Personal cost of reporting	3.26	1.61
Personal responsibility for reporting	4.76	1.44

6.3 Moderators

This section presents the descriptive statistics for the four moderators: team norms, group cohesion, perceived organization support and moral intensity. Specifically, it highlights the means, standard deviations, scale items and Cronbach's alphas of the moderating variables.

6.3.1 Team norms

Table 17 provides an overall analysis of the descriptive statistics for the moderating variable (team norms). The mean for team norms (M = 4.77) is above the midpoint scale. The results may imply that respondents rated the standards (i.e., the acceptable work habits and behaviours) that govern the groups as being moderately high. One of the items that tested the ethical norms had the second highest mean of 4.86.

Table 17: Descriptive statistics for team norms

Items	Mean	Standard Deviation
Our audit team develops standards over and above those specified by the firm to judge our performance by.	4.84	1.05
Our audit team members share common expectations about the behaviour of all work group members.	4.71	0.98
Our audit team members have identified the strengths and weaknesses of individual work group members.	4.61	1.05
Our audit team members share common expectations about the behaviour of particular work group members with specific responsibilities.	4.88	0.97
Our audit team members share common expectations that the behaviour of the group will be ethical.	4.86	0.98
Overall team norms	**4.77**	**0.78**
Cronbach alpha = .88		

6.3.2 Group cohesion

Table 18 details the descriptive statistics for the independent measure (group cohesion). The overall mean (3.15) for group cohesion is slightly below the midpoint scale. The results may suggest that respondents perceived that there is a relatively low level of cohesiveness within the audit teams in the sample. This may be a direct result of teams constantly changing for different audit engagements.

Table 18: Descriptive statistics for group cohesion

Items	Mean	Standard Deviation
To what extent do you **trust** the members of your audit team?	3.23	1.01
To what extent are the people in your audit team **helpful** to you in getting your job done?	3.14	1.07
To what extent are people in your audit team **friendly**?	3.12	0.99
To what extent do people in your audit team take **a personal interest** in you?	3.08	1.01
To what extent do **you look forward to being with the members** of your audit team each day?	3.18	1.05
Overall group cohesion	**3.15**	**0.61**
Cronbach alpha = .92		

6.3.3 Group aggregation

James, Demaree and Wolf (1984, 1993) developed the rwg(j) index of agreement to measure the degree of consensus within groups. In this current study, the rwg(j) was used to determine the appropriateness and validity of team level constructs, based on the individuals' perceptions of the level of team norms and group cohesion. The rwg(j) has values, ranging from 0 to 1. The mean rwg(j) was .95 for group cohesion and .93 for team norms.

Intraclass correlation coefficients (ICCs) were used to measure between group variance, ICC(1), and reliability of group means, ICC(2) (Bliese, 2000). This study found that ICC (1) was .19, $F(53, 172) = 2.66$, $p < .001$, indicating that 19% of the variability in individual ratings of group cohesion was related to group membership. The ICC(1) for team norms was .28, $F(53, 172) = 3.475$, $p < .01$, indicating that 28% of the variability of team norms was related to group membership. The reliability of the group means ICC(2) was .73 for group cohesion and .71 for team norms. Both ICC values were comparable to those obtained in prior research (e.g. Bliese, 2000; Liao and Rupp, 2005). ICC(2) values of .70 or higher are more favourable (Bliese, 2000). Thus, these preliminary results justify the aggregation of individual auditors' responses to form single scores for group cohesion and team norms for each audit team.

6.3.4 Perceived organizational support

Table 19 presents the means, standard deviation and Cronbach's alpha for the perceived organizational support scale. It shows that the respondents perceived relatively high levels of organizational support ($M = 5.03$, $SD = 1.08$). It was also noticeable that the new item "my organization values my integrity" which was added to the original scale, had the highest mean score ($M = 5.81$, $SD = 1.25$).

Table 19: Descriptive statistics for perceived organizational support

Items	Mean	Standard Deviation
My organization cares about my opinions.	5.01	1.60
My organization really cares about my well-being.	4.95	1.56
My organization strongly considers my goals and values.	5.02	1.52
Help is available from my organization when I have a problem.	5.30	1.49
My organization would forgive an honest mistake on my part.	5.03	1.42
If given the opportunity, my organization would take advantage of me. *	4.29	1.80
My organization shows very little concern for me. *	5.23	1.67
My organization is willing to help me if I need a special favour.	4.66	1.45
My organization values my integrity **	5.81	1.25
Overall average perceived organizational support	**5.03**	**1.08**
Summed perceived organizational support	**45.29**	**9.69**
Cronbach alpha = .87		

* Items reverse-scored
** Additional item put into the original scale

6.3.5 Perceived moral intensity

Table 20 shows the means, standard deviations and Cronbach's alpha for the moral intensity scale. The mean for this scale was 4.88, which implies that respondents had moderately high perceptions of the moral intensity of the issue under study.

Table 20: Scale items and means for perceived moral intensity

Items	Mean	Standard Deviation
Scenario 1		
Probability of effect on financial statements	4.78	1.09
Discovery by management	4.80	1.00
Disciplinary action	4.91	0.99
Seriousness	5.02	1.18
Overall average perceived moral intensity	**4.88**	**0.97**
Summed perceived moral intensity	**19.50**	**3.86**
Cronbach's alpha = . 92		

6.4 Correlations among the variables

Table 21 presents the means, standard deviations and correlations among the variables in the study. Pearson's bivariate correlation was used to test the relationship among the independent, moderating and dependent variables. There were no significant relationships found between the dependent variables and demographic variables. The majority of the variables were multi-item scales that could be summed, but the average scores for the scales were used throughout this analysis. Despite the fact that several independent variables were highly correlated, a test for multicollinearity was conducted and it was found that the variance inflation factors (VIF) were low (below 2). Thus, similar to prior research in this area (Schultz et al., 1993; Kaplan and Whitecotton, 2001), the low variance inflation factors in this study indicate that multicollinearity may not be a major concern.[22] Table 21 shows that all of the independent variables,

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[22] Tabachnick and Fidell (2007) noted that statistical problems created by multicollinearity occur when correlations are .90 and higher. However, Cronbach (1987) argued that multicollinearity does not negatively affect the power of multiple moderating regression. Aguinis (1995) suggests that predictors should be centered prior to creating the product term to avoid high multicollinearity problems.

except for desired moral approbation, were significantly correlated with internal whistle-blowing intentions ($p < .05$), but not with external whistle-blowing intentions ($p > .05$). The moderators were not significantly related to internal whistle-blowing intentions. Perceived organizational support, perceived moral intensity and group cohesion were significantly related to external whistle-blowing intentions ($p < .05$).

Table 21: Descriptive statistics and correlations among the control, independent, moderating and dependent variables

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Controls																	
1　SDB	8.23	4.18	(.75)														
2　Gender	1.55	0.50	.18**	(-)													
3　Tenure	7.84	4.93	.07	-.22**	(-)												
Dependents																	
4　IWB	4.96	1.47	.05	.03	-.11†	(.91)											
5　EWB	3.45	1.22	.07	.12†	-.07	.44**	(.88)										
Independents																	
6　ATW	5.04	1.22	.07	.03	-.15*	.14*	.07	(.82)									
7　DMA	5.15	0.89	-.04	.06	-.06	.06	-.07	.38**	(.80)								
8　PBC	4.57	1.43	.02	-.02	-.03	.13*	.11†	.67**	.28**	(.81)							
9　IC	4.93	1.29	.12†	.07	-.12†	.26**	.07	.61**	.31**	.42**	(.91)						
10　PRR ᵃ	4.76	1.44	.19**	.01	-.06	.30**	.08	.64**	.37**	.50**	.69**	(-)					
11　PCR ᵃ	3.26	1.61	-.05	.09	-.02	-.16*	.09	-.16*	-.01	-.17**	-.13*	-.15*	(-)				
Moderators																	
12　POS	5.03	1.08	.02	.02	.01	.07	-.31**	.30**	.37**	.23**	.29**	.40**	-.07	(.87)			
13　GC	3.15	0.61	-.20**	-.02	-.04	.01	.14*	-.17*	-.13†	-.15*	-.16*	-.21**	.-.04	-.16*	(.92)		
14　TN	4.77	0.78	.21**	.03	-.04	-.05	-.10	.16*	.07	.14*	.08	.18**	.01	. 10	-.72**	(.88)	
15　PMI	4.88	0.97	.10	-.05	.05	-.01	-.23**	.14*	.33**	.10	.12†	.19**	.01	.58**	-.36**	.33**	(.92)

Notes:
** p < .01; * p < .05; † p < .10.
M = Mean; SD = Standard deviation.
1 = Social desirability bias (SDB); 2 = Gender; 3 = Tenure; 4 = Internal whistle-blowing intentions (IWB); 5 = External whistle-blowing intentions (EWB);
6 = Attitudes toward whistle-blowing (ATW); 7 = Desired moral approbation (DMA); 8 = Perceived behavioural control (PBC); 9 = Independence commitment (IC);
10 = Personal responsibility for reporting (PRR); 11 = Personal cost for reporting (PCR); 12 = Perceived organizational support (POS); 13 = Group cohesion (GC);
14 = Team norms (TN); 15 = Perceived moral intensity (PMI).
Alpha reliabilities are shown in parentheses on the diagonal.
(-) represents single-item variables for which reliabilities can not be computed.
ᵃ = single-item scales

6.5 Results of hypotheses tests - Moderating multiple regression analysis

6.5.1 Tests for main and moderating effects

Hierarchical moderated regressions were conducted to test the main effect and moderating hypotheses proposed in the model.[23] To test the main and moderating effects, control variables (social desirability bias, gender and tenure) were entered in step 1; independent variables in step 2 (main effect); moderators in step 3; and the interactions between the independent and moderating variables in step 4 (moderating effect). The changes in multiple squared correlation coefficients (R^2) were evaluated to determine the significant influences of the variables on whistle-blowing intentions. Given that hypotheses 1a to 1f require an examination of main effects of the independent variables (prior to tests of moderation in the fourth steps), it was necessary to evaluate the second steps of the hierarchical regressions presented and discussed below, as these steps provide the information for the main effects.

The study followed Cohen and Cohen's (1983) recommendation for testing the interaction effects of the moderators. This study used hierarchical multiple regression analysis to separately test the moderating effects of perceived organizational support, moral intensity, group cohesion and team norms on the relationships between the independent variables and the dependent variables. Before the regression analysis was performed, the predictor variables (both independents and the moderators) were zero-centred, based on the recommendation of Aiken and West (1991).

An attempt was made to control for the possible influences of demographic and other variables in the analysis. Using univariate tests, these demographic variables were

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[23] Since the study had several single item constructs (i.e. personal responsibility for reporting and personal costs of reporting), structural equation modeling (SEM) was not used. Hair, Black, Babin and Anderson (2009) argued that "single-item measures can create identification problems in SEM; thus we suggest their use be limited. Given the nature of SEM, latent constructs represented by multiple items are the preferred approach" (p. 717). In addition, readers are directed to section 5.8.2 - Individual and group analysis, for the rationale for using moderated multiple regression (OLS) analysis in this study.

found not to be significantly related to the dependents or independent variables. Prior studies have used the non-significant relationships as justification for their exclusion from further analysis (Buchan, 2005; Shafer, 2008, p.830; Kaplan and Whitecotton, 2001, p. 56). However, it was felt that certain variables such as gender, tenure (working experience) and social desirability bias were needed to be controlled for, given their theoretical influences from the literature (Sims and Keenan, 1998; Chiu, 2003; Flannery and May, 2000; Mesmer-Magnus and Viswevaran, 2005). For example, Flannery and May (2000) argued that the non-significant relationship between social desirability bias and other variables in their research may indicate that the managers in their sample were responding honestly to the issues. In any event, social desirability needed to be controlled for, given the criticisms levelled at self-report measures.

To evaluate the form or pattern of the interactions, ModGraph-1 programme by Jose (2008) was used to plot the interaction graphs. This programme requires the user to extract from SPSS output, the unstandardised regression coefficients for the predictor, moderator, the interaction and the constant as well as the means and standard deviations of the centred predictor and moderator variables. As a result, a graph is drawn to reflect the interaction. To test if the simple slopes of the moderator (e.g. low, medium and high levels of perceived organizational support) differ significantly from zero, ModGraph-1 was used. To calculate the simple slopes, standard errors, t-values and related p-values, the data from the covariance matrix of the output from regression is inputted in ModGraph-1 (Adebayo, 2005).

6.5.2 Main effects - Antecedents of whistle-blowing intentions

In terms of main effect hypotheses, it was hypothesized that attitudes toward whistle-blowing (H1a), desired moral approbation (H1b), perceived behavioural control (H1c),

212

independence commitment (H1d) and personal responsibility for reporting (H1e) would have positive relationships with whistle-blowing intentions, while personal cost of reporting (H1f) would have a negative relationship with whistle-blowing intentions.

For the hierarchical regressions conducted (see Tables 22, 26, 29 and 32) in step 2 (the independent variable), it was found that attitudes, perceived behavioural control, independence commitment, personal responsibility to report and personal cost of reporting significantly contributed to explained variance for internal whistle-blowing intentions ($p < .05$). Significant main effects were found for attitudes toward whistle-blowing ($\beta = .180$, $\Delta R^2 = .032$, $p < .05$), perceived behavioural control ($\beta = .179$, $\Delta R^2 = .032$, $p < .05$), independence commitment ($\beta = .233$, $\Delta R^2 = .054$, $p < .01$), personal responsibility for reporting ($\beta = .265$, $\Delta R^2 = .069$, $p < .01$), and personal cost of reporting ($\beta = -.169$, $\Delta R^2 = .028$, $p < .05$). Thus, hypotheses H1a, H1c, H1d, H1e and H1f were fully supported for internal whistle-blowing intentions.

Tables 23, 27, 30 and 33 show the results for external whistle-blowing In terms of external whistle-blowing intentions, a significant main effect was only found for perceived behavioural control ($\beta = .137$, $\Delta R^2 = .019$, $p < .05$). A marginally significant main effect was found for personal responsibility for reporting on external whistle-blowing intentions ($\beta = .118$, $\Delta R^2 = .014$, $p < .10$). Therefore, only H1c (perceived behavioural control) was fully supported for external whistle-blowing intentions. Marginal support was found for personal responsibility for reporting. No support was found for desired moral approbation in explaining auditors' intentions to whistle-blow internally or externally. Thus, hypothesis H1b was not supported.

6.6 Results of the moderation hypotheses

6.6.1 The moderating effect of perceived organizational support on whistle-blowing intentions

Based on Baron and Kenny's (1986) recommendations for the order of entry of the predictor variables, the test for moderation was conducted using hierarchical regression analysis in four steps, consistent with Adebayo's (2005) approach. In the first step (step 1), the control variables, gender, tenure and social desirability bias, were entered. In the second step (step 2), each of the six independent variables (e.g. attitudes, desired moral approbation, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) were entered to test for the main effects. In Step 3, the centered variable (e.g. in this case, perceived organizational support) was entered as a moderator (Adebayo, 2005). In Step 4, the interaction (the centered independent x centered moderator) was entered to test the study's hypothesis 2 that perceived organizational support moderates the relationship between the independent variable (e.g. attitudes) and the dependent variables (internal or external whistle-blowing intentions). Tables 22 and 23 show the results of the twelve hierarchical multiple regression analyses for the moderating effect of perceived organizational support on internal and external whistle-blowing intentions. Figures 12 to 19 show the graphs drawn for those significant moderating effects. Table 24 show the simple slopes analyses for perceived organizational support.

Perceived organizational support significantly moderated the effects of all of the independent variables, except desired moral approbation, on internal whistle-blowing intentions (see Table 22). Table 22 shows that five of the perceived organizational support interaction terms (the five independent variables x perceived organizational support) added significant incremental variance in internal whistle-blowing intentions

(attitudes, β = .373, ΔR^2 = .132, p < .01; perceived behavioural control, β = .299, ΔR^2 = .088, p < .01; independence commitment, β = .271, ΔR^2 = .071, p < .01; personal responsibility for reporting, β = .295, ΔR^2 = .084, p < .01; and personal cost of reporting, β = .309, ΔR^2 = .089, p < .01). These results indicate that the relationships between the independent variables (attitudes, perceived behavioural control, independence commitment and personal responsibility for reporting) and internal whistle-blowing intentions were stronger and positive at higher levels of perceived organizational support than at lower levels. In contrast, the relationship between personal cost of reporting and internal whistle-blowing intentions was stronger and negative, when perceived organizational support was low. This finding shows that when personal cost is high, audit staff exhibit lower whistle-blowing intentions under low levels of perceived organizational support.

Results from simple slope analysis confirmed all significant interactions derived from the regression analyses (see Table 24). In the case of attitudes toward whistle-blowing, perceived behavioural control, independence commitment and personal responsibility for reporting, the pattern of their interactions as revealed by the graphs (Figures 12, 13, 14 and 15), showed that when perceived organizational support was high, there were significant and positive relationships between these variables and internal whistle-blowing. Table 24 further confirmed that when perceived organizational support was high, the effects of attitudes (t = 5.88, p < .01), perceived behavioural control (t = 5.02, p < .01), independence commitment (t = 5.29, p < .01) and personal responsibility for reporting (t = 6.03, p < .01) were significant.

However, the relationships between the independent and dependent variables were different, when perceived organizational support was low. For example, when perceived organizational support was low, the effects of independence commitment (t =

-0.22, p > .05) and personal responsibility for reporting (t = -0.15, p > .05) were non-significant, whereas the effects of attitudes and perceived behavioural control were marginally and significantly negative (p < .10). In terms of personal cost of reporting, when perceived organizational support was low, there was a significant negative relationship between this variable and internal whistle-blowing intentions (t = -4.95, p < .01), but when perceived organizational support was high, the effect was marginally significant and positive (t = 1.86, p < .10; see Figure 16).

In terms of external whistle-blowing intentions, perceived organizational support also significantly moderated the effects of only three of the independent variables (attitudes, perceived behavioural control and personal cost of reporting) (p < .05). Table 23 shows that three of the perceived organizational support interaction terms (the three independent variables x perceived organizational support) added significant incremental variance in external whistle-blowing (attitudes, β = -.151, ΔR^2 = .021, p < .05; perceived behavioural control, β = -.169, ΔR^2 = .028, p < .05; and personal cost of reporting, β = .187, ΔR^2 = .033, p < .01). These results indicate that the relationships between the independent variables (attitudes and perceived behavioural control) and internal whistle-blowing intentions were stronger and positive at lower levels of perceived organizational support than at higher levels. This can be explained by the fact that potential whistle-blowers, who perceived low support from internal members, are more inclined to report to alternative external authorities or channels, if the issue has not been adequately resolved to their satisfaction. In contrast, the relationship between personal cost of reporting and external whistle-blowing intentions was stronger and positive (i.e. high personal costs associated with higher whistle-blowing intentions), when perceived organizational support was high. Desired moral approbation was marginally supported (p < .10).

Results from simple slope analyses in Table 24 confirmed the significant interactions derived from the regression analyses. In the case of attitudes and perceived behavioural control, the pattern of the interaction as revealed by the graphs (Figures 17 and 18) show that when perceived organizational support was low, there were significant and positive relationships between these variables (attitudes and perceived behavioural control) and external whistle-blowing. For example, when perceived organizational support was low, the effects of attitudes ($t = 3.34$, $p < .01$) and perceived behavioural control ($t = 3.94$, $p < .01$) were positive and significant on external whistle-blowing intentions (Table 24). However, the relationships between these independent and dependent variables were different when perceived organizational support was high. For example, Table 24 shows that when perceived organizational support was high, the effects of attitudes ($t = 0.12$, $p > .05$) and perceived behavioural control ($t = 0.28$, $p > .05$) were non-significant (See Figures 17 and 18). In addition, when perceived organizational support was high, the effect of personal cost of reporting on external whistle-blowing was significantly positive ($t = 2.83$, $p < .01$) (see Figure 19).

Table 22: Results of hierarchical regression analysis for the moderating effects of perceived organizational support on internal whistle-blowing intentions

		Internal whistle-blowing intentions					
		Attitudes toward whistle-blowing			Desired moral approbation		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.012			.012		
	Gender	.014			.014		
	Tenure	-.112	.013	.013	-.112	.013	.013
2	IV	.180*	.045*	.032*	.061	.017	.004
3	POS	.010	.045	.000	.050	.019	.002
4	IV x POS	.373**	.177**	.132**	.113	.031	.012
	F value	7.204**			1.085		
		Perceived behavioural control			Independence commitment		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.012			.012		
	Gender	.014			.014		
	Tenure	-.112	.013	.013	-.112	.013	.013
2	IV	.179*	.045*	.032*	.233**	.067**	.054**
3	POS	.028	.046	.001	-.006	.067	.000
4	IV x POS	.299**	.134**	.088**	.271**	.138**	.071**
	F value	5.190**			5.374**		
		Personal responsibility for reporting			Personal cost of reporting		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.012			.012		
	Gender	.014			.014		
	Tenure	-.112	.013	.013	-.112	.013	.013
2	IV	.265**	.083**	.069**	-.169*	.041*	.028*
3	POS	-.037	.084	.001	.052	.044	.003
4	IV x POS	.295**	.168**	.084**	.309**	.133**	.089**
	F value	6.762**			5.134**		

Notes: N = 226; SDB = Social desirability bias; POS = Perceived organizational support; IV = Independent variable; Standardized Beta-Coefficients are reported; ** $p < .01$; * $p < .05$; † $p < .10$; F values at the final step are reported.

Table 23: Results of hierarchical regression analysis for the moderating effects of perceived organizational support on external whistle-blowing intentions

		External whistle-blowing intentions					
		Attitudes toward whistle-blowing			Desired moral approbation		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.085			.085		
	Gender	.078			.078		
	Tenure	-.062	.021	.021	-.062	.021	.021
2	IV	.075	.026	.005	-.035	.022	.001
3	POS	-.310**	.112**	.086**	-.280**	.090**	.068**
4	IV x POS	-.151*	.134*	.021*	-.129†	.105†	.016†
	F value	5.183**			3.946**		
		Perceived behavioural control			Independence commitment		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.085			.085		
	Gender	.078			.078		
	Tenure	-.062	.021	.021	-.062	.021	.021
2	IV	.137*	.040*	.019*	.081	.027	.006
3	POS	-.300**	.125**	.085**	-.309**	.113**	.086**
4	IV x POS	-.169*	.153*	.028*	-.076	.119	.006
	F value	6.056**			4.529**		
		Personal responsibility for reporting			Personal cost of reporting		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.085			.085		
	Gender	.078			.078		
	Tenure	-.062	.021	.021	-.062	.021	.021
2	IV	.118†	.034†	.014†	.098	.030	.009
3	POS	-.346**	.137**	.103**	-.249**	.092**	.061**
4	IV x POS	-.061	.141	.004	.187**	.124*	.033**
	F value	5.498**			4.746**		

Notes: N = 226; SDB = Social desirability bias; POS = Perceived organizational support;
IV = Independent variable; Standardized Beta-Coefficients are reported; ** p < .01; * p < .05;
† p < .10; F values at the final step are reported.

Figure 12: Plot of interaction effect of attitudes toward whistle-blowing and perceived organizational support on internal whistle-blowing intentions
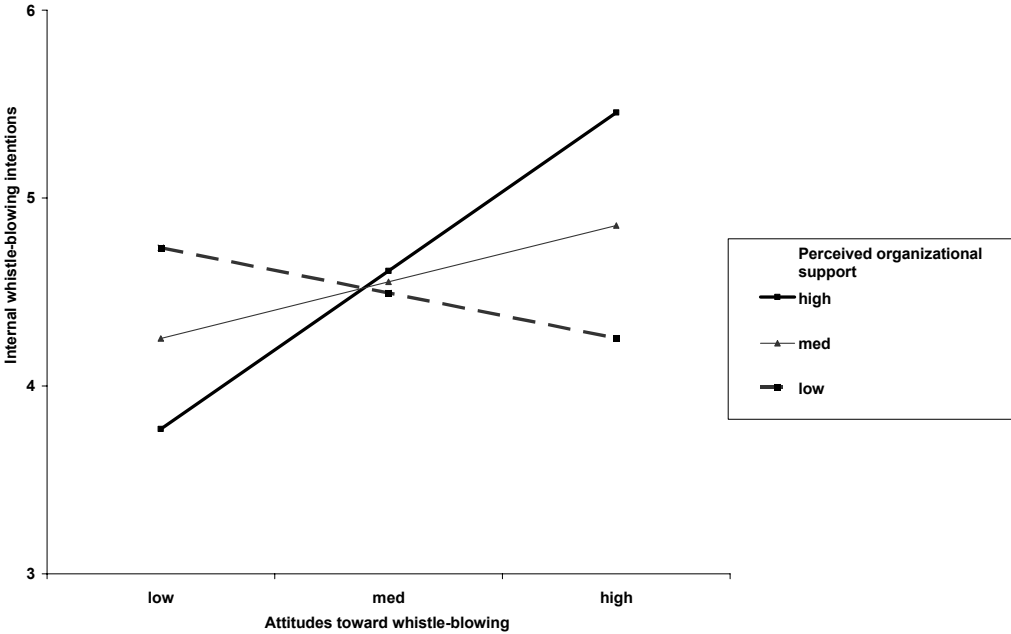
Figure 13: Plot of interaction effect of perceived behavioural control and perceived organizational support on internal whistle-blowing intentions
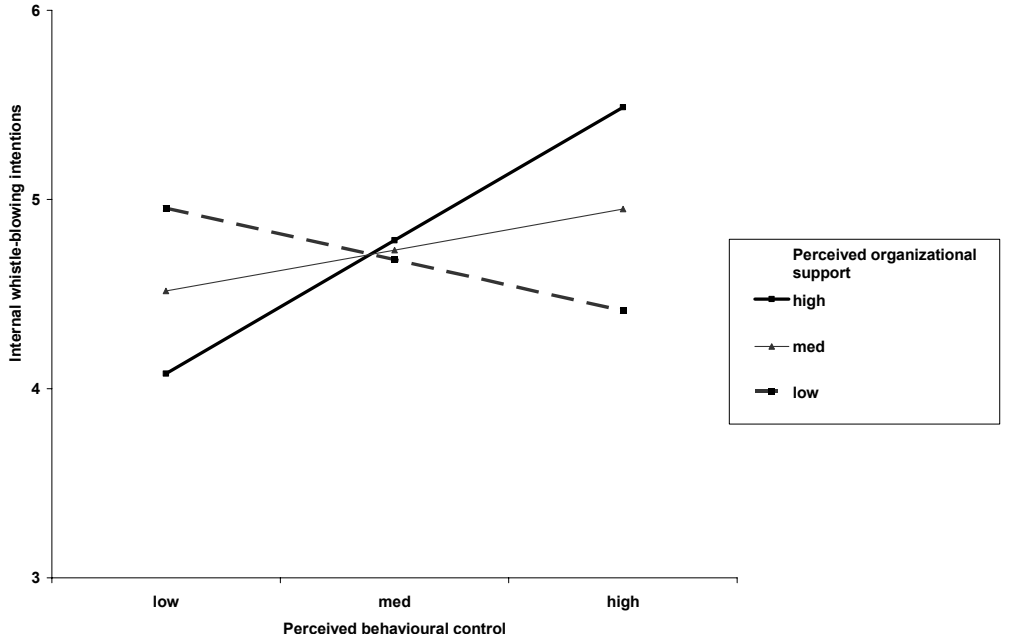
Figure 14: Plot of interaction effect of independence commitment and perceived organizational support on internal whistle-blowing intentions
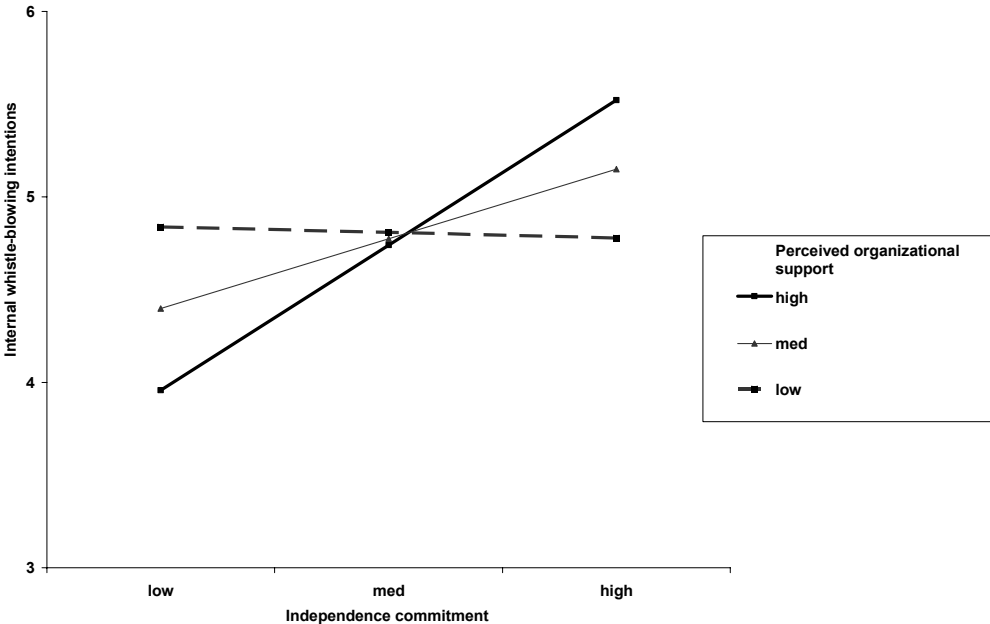
Figure 15: Plot of interaction effect of personal responsibility for reporting and perceived organizational support on internal whistle-blowing intentions
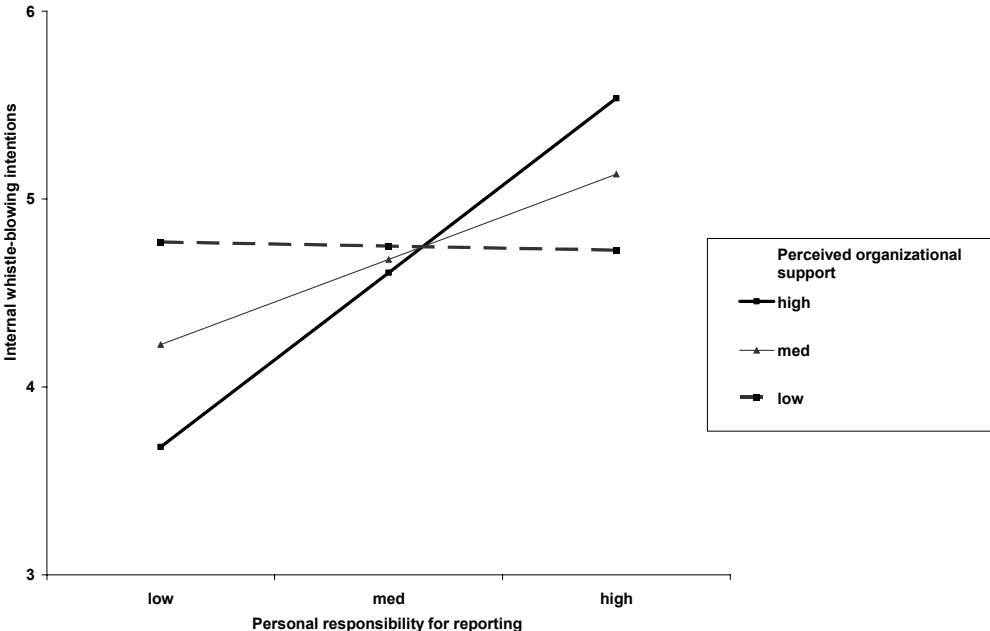
Figure 16: Plot of interaction effect of personal cost of reporting and perceived organizational support on internal whistle-blowing intentions
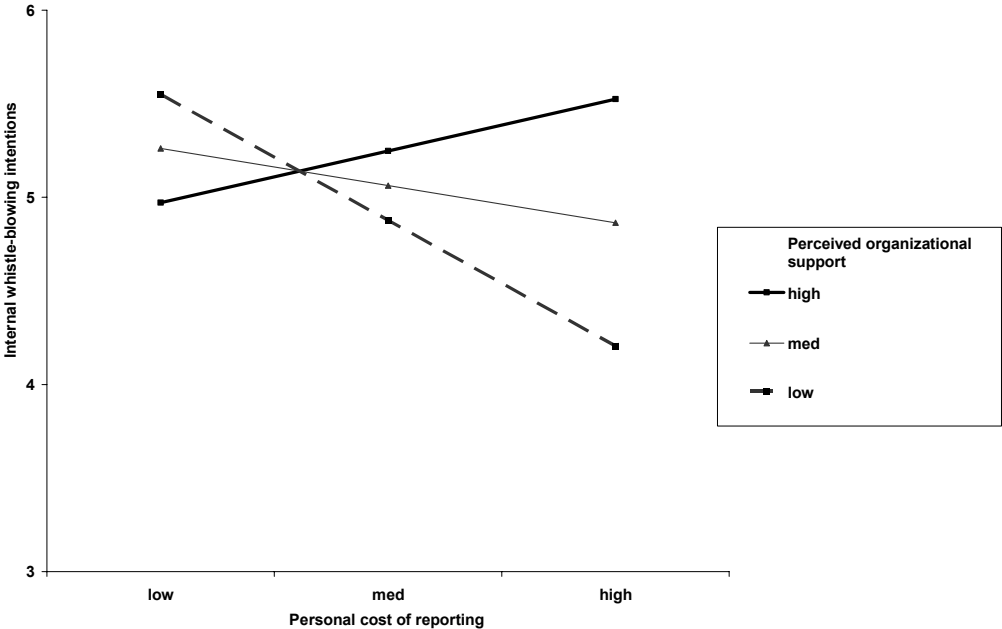
Figure 17: Plot of interaction effect of attitudes toward whistle-blowing and perceived organizational support on external whistle-blowing intentions
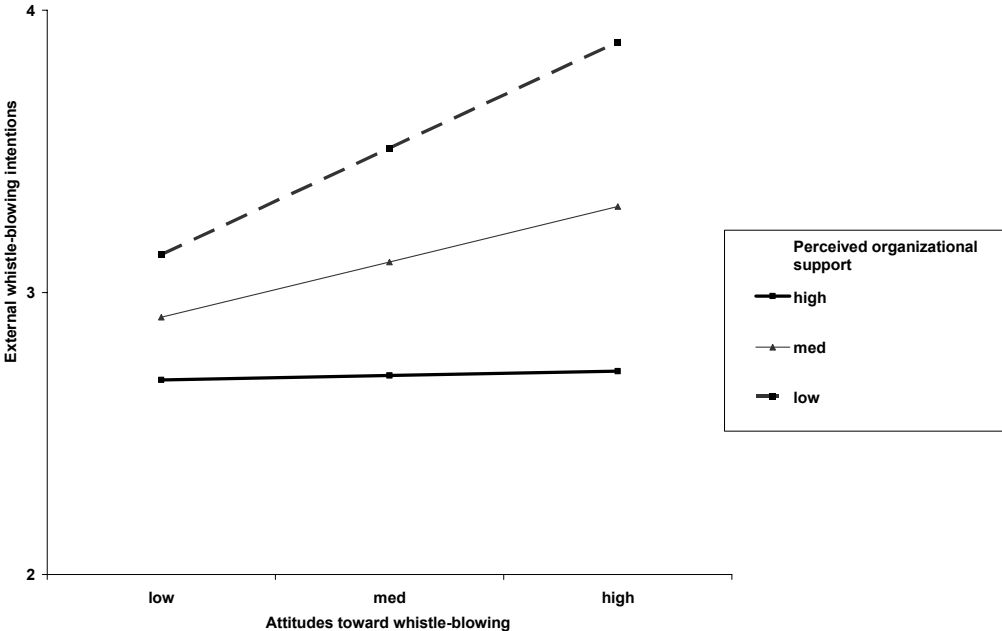
Figure 18: Plot of interaction effect of perceived behavioural control and perceived organizational support on external whistle-blowing intentions
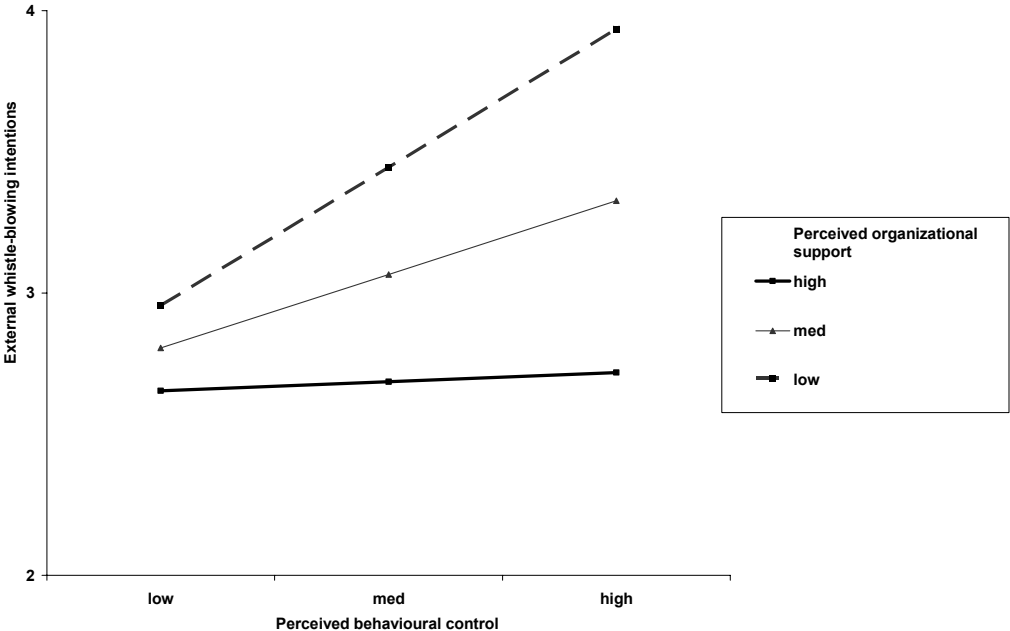
Figure 19: Plot of interaction effect of personal cost of reporting and perceived organizational support on external whistle-blowing intentions
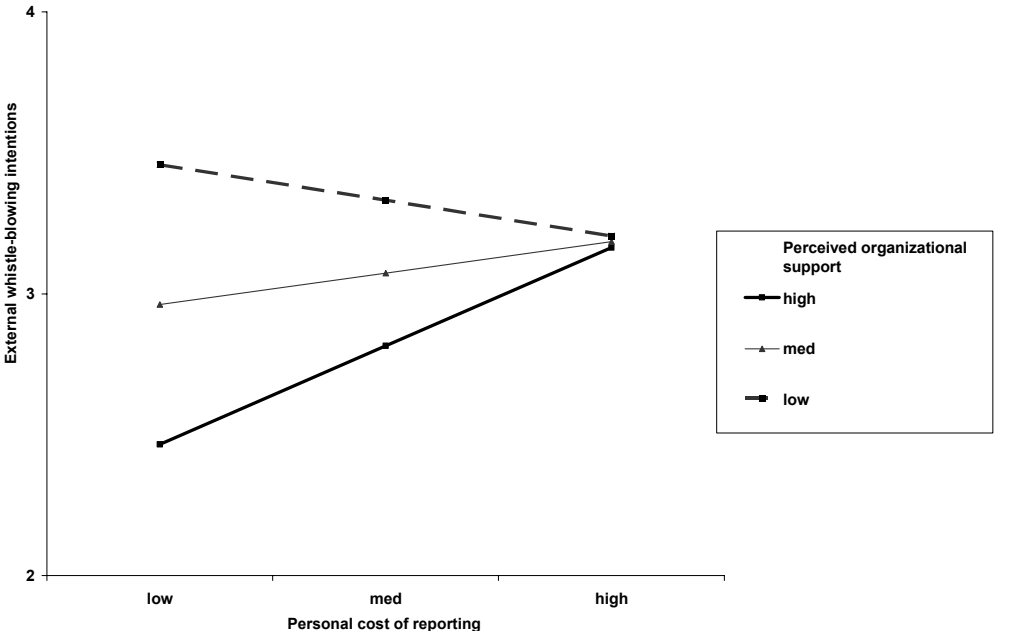
Table 24: Effects of independent variables on whistle-blowing intentions at low, medium and high perceived organizational support (simple slopes analysis)

	Internal Whistle-blowing			External Whistle-blowing		
Organizational support levels	**β**	**SE**	**t**	**β**	**SE**	**t**
Attitudes toward whistle-blowing						
High level organizational support	0.691	0.1118	5.88 **	0.012	0.100	0.12
Medium level organizational support	0.247	0.082	3.01 **	0.161	0.074	2.18*
Low level organizational support	- 0.197	0.109	-1.81 †	0.310	0.093	3.34**
Desired moral approbation						
High level organizational support	NS	NS	NS	NS	NS	NS
Medium level organizational support	NS	NS	NS	NS	NS	NS
Low level organizational support	NS	NS	NS	NS	NS	NS
Perceived behavioural control						
High level organizational support	0.491	0.097	5.02 **	0.023	0.080	0.28
Medium level organizational support	0.151	0.071	2.12*	0.182	0.058	3.14**
Low level organizational support	- 0.189	0.106	-1.78 †	0.341	0.087	3.94**
Independence commitment						
High level organizational support	0.607	0.115	5.29**	NS	NS	NS
Medium level organizational support	0.292	0.079	3.71**	NS	NS	NS
Low level organizational support	-0.023	0.106	- 0.22	NS	NS	NS
Personal responsibility for reporting						
High level organizational support	0.643	0.107	6.03 **	NS	NS	NS
Medium level organizational support	0.314	0.073	4.30 **	NS	NS	NS
Low level organizational support	-0.015	0.099	-0.15	NS	NS	NS
Personal cost of reporting						
High level organizational support	0.172	0.092	1.86†	0.217	0.077	2.83**
Medium level organizational support	- 0.123	0.063	- 1.95†	0.069	0.050	1.40
Low level organizational support	- 0.418	0.084	- 4.95**	-0.078	0.070	-1.11

Notes: ** $p < .01$; * $p < .05$; † $p < .10$; SE = Standard errors.
Table only shows simple slopes for those variables with significant interactions. NS = non-significant at $p > .05$.

The results of this study show that there was a positive and significant relationship between the independent variables (attitudes, perceived behavioural control, independence commitment and personal responsibility for reporting) and internal whistle-blowing intentions among auditors, who perceived moderate and high levels of perceived organizational support. There was also a negative and significant relationship between personal cost of reporting and internal whistle-blowing intentions.

This is consistent with social exchange theory and the norm of reciprocity, where external auditors felt more obligated to and were more willing to give back to the organization by developing positive attitudes and high whistle-blowing (i.e. prosocial behaviour to the organization) (Adebayo, 2005, p. 698). In contrast, those who perceived low support may be less inclined to report for fear of reprisals.

It was also found that when perceived organizational support was low, there were positive and significant relationships between the independent variables (attitudes and perceived behavioural control) and external whistle-blowing. When perceived organizational support was high, there was a significant and positive relationship between personal cost of reporting and external whistle-blowing intentions. This indicates that when perceived organizational support was high, audit practitioners who perceived low personal costs were less likely to whistle-blow externally. Overall, hypothesis 2 (H2) was partially supported insofar as perceived organizational support moderated the relationship between the independent variables (attitudes, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) and internal whistle-blowing intentions. Furthermore, perceived organizational support moderated the relationship between the independent variables (attitudes, perceived behavioural control, and personal cost of reporting) and external whistle-blowing intentions (see Table 35).

6.6.2 The moderating effect of group cohesion

Hypothesis 3 posits that group cohesion would moderate the relationship of each on the six independent variables influence on whistle-blowing intentions. Tables 26 and 27 show the results of the twelve hierarchical multiple regression analyses for the moderating effect of group cohesion on internal and external whistle-blowing

intentions. Figures 20 to 25 show the graphs drawn for those significant moderating effects. Table 28 shows the simple slopes analyses for group cohesion.

Table 26 shows that group cohesion did not have a significant main effect on internal whistle-blowing intentions ($p < .05$). It was also found that group cohesion significantly moderated the effects of four of the independent variables (attitudes, perceived behavioural control, independence commitment, and personal responsibility for reporting) on internal whistle-blowing intentions. Table 26 shows that four of the group cohesion interaction terms (the four independent variables x group cohesion) added significant incremental variance in internal whistle-blowing intentions (attitudes, $\beta = -.243$, $\Delta R^2 = .056$, $p < .01$; perceived behavioural control, $\beta = -.158$, $\Delta R^2 = .024$, $p < .05$; independence commitment ($\beta = -.211$, $\Delta R^2 = .042$, $p < .01$; and personal responsibility for reporting, $\beta = -.223$, $\Delta R^2 = .048$, $p < .01$). These results indicated that the relationships between the independent variables (attitudes, perceived behavioural control, personal responsibility for reporting and independence commitment) and internal whistle-blowing intentions were stronger and positive at lower levels of group cohesion than at higher levels. Desired moral approbation was marginally supported at $p < .10$ level.

Results from simple slope analysis confirmed all significant interactions derived from the regression analyses. In the case of attitudes, perceived behavioural control, personal responsibility for reporting and independence commitment, the pattern of the interactions as revealed by the graphs (Figures 20 to 23), showed that when group cohesion was low, there were significant and positive relationships between these variables and internal whistle-blowing ($p < .01$). For example, Table 28 shows that the effects of attitudes ($t = 4.45$, $p < .01$), perceived behavioural control ($t = 3.53$, $p < .01$), independence commitment ($t = 4.63$, $p < .01$) and personal responsibility for reporting

(t = 5.23, p < .01) were significant and positively related to internal whistle-blowing, when group cohesion was low. However, the relationships between the independent and dependent variables were non-significant, when group cohesion was high (p > .05).

Group cohesion significantly moderated the effects of independence commitment and personal cost of reporting on external whistle-blowing intentions (p < .05). Tables 27 and 28 show the significant and non-significant interactions from the regression and simple slopes analyses, respectively. Table 27 shows that two of the group cohesion interaction terms (the two independent variables x group cohesion) added significant incremental variance in external whistle-blowing intentions (independence commitment, β = -.200, ΔR^2 = .038, p < .01; and personal cost of reporting, β = .141, ΔR^2 = .020, p < .05). Simple slopes analysis in Table 28 shows that under high levels of group cohesion, personal cost of reporting is positively associated with external whistle-blowing intentions (t = 2.48, p < .05) (see Figure 25). This may suggest that where individuals perceive high personal costs, the need for some form of group support could encourage external whistle-blowing. Table 28 also shows that when group cohesion was low, the effect of independence commitment was significantly and positively related to external whistle-blowing (t = 3.10, p < .01) (see Figure 24). The variable, attitudes, was marginally supported (p < .10) (Table 27).

Overall, group cohesion moderated the relationship between only four of the six independent variables (attitudes, perceived behavioural control, independence commitment and personal responsibility for reporting) and internal whistle-blowing intentions. In addition, group cohesion moderated the relationship of the independent variables (independence commitment and personal cost of reporting) and external whistle-blowing intentions. Thus, hypothesis 3 (H3) was partially supported (see Table 35).

Social control theory (Hirschi and Stark, 1969) suggests that individuals'
personalities may be confined when there is high cohesiveness in groups. In high
cohesive groups, audit staff's views are likely to be highly influenced, whereas in low
cohesive groups, individuals may be tempted to seek remedial action outside of the
group. If there are no strong ties or affiliation with the audit team in terms of perceived
solidarity (i.e. low cohesiveness) or perceived social support, an auditor who dissents is
more likely to report outside of the group. At the same time, it is possible that where
perceived cohesiveness is high, dissenters are more likely to step outside of the group
and engage in critical thinking to make ethical decisions. At times, decisions are made
based on how the group will most likely benefit from the action taken. Groupthink
may result in the making of ethical and unethical decisions as these decisions are often
made in the best interest of the group. If the group stands to benefit, the group may
sometimes encourage dysfunctional or unethical behaviours by individuals within the
group, regardless of how ethical the act may appear.

Membership in cohesive groups may remove the general inhibitions that
prevent individuals from harming others by generating the perception that fellow group
members will support their actions even when they are unethical. Narayanan et al.
(2006, p. 129) argued that the level of cohesion has an influence on the individual's
perceptions of the ethicality of an action and his or her willingness to engage in
unethical behaviour. Thus, cohesion may increase the individual's intention to engage
in unethical acts, given fellow group members' validation of the action. Narayanan et
al. (2006) further argues that membership in groups may foster a belief of shared
responsibility when acting ethically or unethically. In more cohesive groups, members
are more likely to engage in unethical behaviour that benefits the group and self (see
Table 25).

Table 25: A typology of unethical actions

	Benefits self	No impact on self	Harm self
Benefits group	Mutual	Charitable	Martyr
No impact on group	Self-interest	Neutral	Masochist
Harms group	Egoistic	Vindictive	Spiteful

Adopted from Narayanan et al. (2006, p. 131)

Cohesion can restrain the individual's behaviour, if they belong to groups which have strong ties. For example, in the case of Enron, Sherron Watkins stepped outside of the group and reported to Kenneth Lay to seek redress, due to the perceived cohesion of that group. Some will view her as a martyr and others will view her act as being spiteful. In a situation where there is a perceived sense of betrayal, the group member may decide that he or she is no longer committed to the group. In this study, the low cohesiveness tended to have a positive influence on internal whistle-blowing.

Table 26: Results of hierarchical regression analysis for the moderating effects of group cohesion on internal whistle-blowing intentions

		Internal whistle-blowing intentions					
		Attitudes toward whistle-blowing			Desired moral approbation		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.012			.012		
	Gender	.014			.014		
	Tenure	-.112	.013	.013	-.112	.013	.013
2	IV	.180*	.045*	.032*	.061	.017	.004
3	Group Cohesion	.045	.047	.002	.021	.017	.000
4	IV x Group Cohesion	-.243**	.103**	.056**	-.125†	.032†	.015†
	F value	3.857**			1.116		
		Perceived behavioural control			Independence commitment		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.012			.012		
	Gender	.014			.014		
	Tenure	-.112	.013	.013	-.112	.013	.013
2	IV	.179*	.045*	.032*	.233**	.067**	.054**
3	Group Cohesion	.043	.047	.002	.047	.069	.002
4	IV x Group Cohesion	-.158*	.071*	.024**	-.211**	.111**	.042**
	F value	2.576*			4.182**		
		Personal responsibility for reporting			Personal cost of reporting		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.012			.012		
	Gender	.014			.014		
	Tenure	-.112	.013	.013	-.112	.013	.013
2	IV	.265**	.083**	.069**	-.169*	.041*	.028*
3	Group Cohesion	.052	.085	.003	.012	.041	.000
4	IV x Group cohesion	-.223**	.134**	.048**	-.063	.045	.004
	F value	5.167**			1.590		

Notes: N = 226; SDB = Social desirability bias; IV = Independent variable; Standardized Beta-Coefficients are reported; ** $p < .01$; * $p < .05$; † $p < .10$; F values at the final step are reported.

Table 27: Results of hierarchical regression analysis for the moderating effects of group cohesion on external whistle-blowing intentions

		External whistle-blowing intentions					
		Attitudes toward whistle-blowing			Desired moral approbation		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.085			.085		
	Gender	.078			.078		
	Tenure	-.062	.021	.021	-.062	.021	.021
2	IV	.075	.026	.005	-.035	.022	.001
3	Group Cohesion	.119†	.040†	.013†	.101	.032	.010
4	IV x Group Cohesion	-.117†	.053†	.013†	-.004	.032	.000
	F value	1.863†			1.100		
		Perceived behavioural control			Independence commitment		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.085			.085		
	Gender	.078			.078		
	Tenure	-.062	.021	.021	-.062	.021	.021
2	IV	.137*	.040*	.019*	.081	.027	.006
3	Group Cohesion	.127†	.055†	.015†	.117	.040	.013
4	IV x Group Cohesion	-.061	.059	.004	-.200**	.078**	.038**
	F value	2.082†			2.831*		
		Personal responsibility for reporting			Personal cost of reporting		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.085			.085		
	Gender	.078			.078		
	Tenure	-.062	.021	.021	-.062	.021	.021
2	IV	.118†	.034†	.014†	.098	.030	.009
3	Group Cohesion	.122†	.049†	.014†	.106	.041	.011
4	IV x Group cohesion	-.032	.050	.001	.141*	.061*	.020*
	F value	1.751			2.159*		

Notes: N = 226; SDB = Social desirability bias; IV = Independent variable; Standardized Beta-Coefficients are reported; ** $p < .01$; * $p < .05$; † $p < .10$; F values at the final step are reported.

Table 28: Effects of independent variables on whistle-blowing intentions at low, medium and high group cohesion (simple slopes analysis)

	Internal Whistle-blowing			External whistle-blowing		
Group cohesion levels	**β**	**SE**	**t**	**β**	**SE**	**t**
Attitudes toward whistle-blowing						
High level group cohesion	-0.038	0.110	-0.34	NS	NS	NS
Medium level group cohesion	0.246	0.103	2.38*	NS	NS	NS
Low level group cohesion	0.530	0.119	4.45**	NS	NS	NS
Desired moral approbation						
High level group cohesion	NS	NS	NS	NS	NS	NS
Medium level group cohesion	NS	NS	NS	NS	NS	NS
Low level group cohesion	NS	NS	NS	NS	NS	NS
Perceived behavioural control						
High level group cohesion	0.018	0.102	0.17	NS	NS	NS
Medium level group cohesion	0.181	0.082	2.19*	NS	NS	NS
Low level group cohesion	0.344	0.097	3.53**	NS	NS	NS
Independence commitment						
High level group cohesion	0.043	0.107	0.41	-0.089	0.090	-0.98
Medium level group cohesion	0.299	0.101	2.95**	0.112	0.070	1.59
Low level group cohesion	0.554	0.120	4.63**	0.312	0.101	3.10**
Personal responsibility for Reporting						
High level group cohesion	0.052	0.098	0.53	NS	NS	NS
Medium level group cohesion	0.292	0.092	3.18**	NS	NS	NS
Low level group cohesion	0.531	0.101	5.23**	NS	NS	NS
Personal cost of reporting						
High level group cohesion	NS	NS	NS	0.187	0.075	2.48*
Medium level group cohesion	NS	NS	NS	0.075	0.051	1.46
Low level group cohesion	NS	NS	NS	-0.037	0.075	-0.50

Notes: ** $p < .01$; * $p < .05$; † $p < .10$. Table only shows simple slopes for those variables with significant interactions. NS = non-significant. SE = Standard errors.

Figure 20: Plot of interaction effect of attitudes toward whistle-blowing and group cohesion on internal whistle-blowing intentions

Figure 21: Plot of interaction effect of perceived behavioural control and group cohesion on internal whistle-blowing intentions

Figure 22: Plot of interaction effect of independence commitment and group cohesion on internal whistle-blowing intentions

Figure 23: Plot of interaction effect of personal responsibility for reporting and group cohesion on internal whistle-blowing intentions

Figure 24: Plot of interaction effect of independence commitment and group cohesion on external whistle-blowing intentions
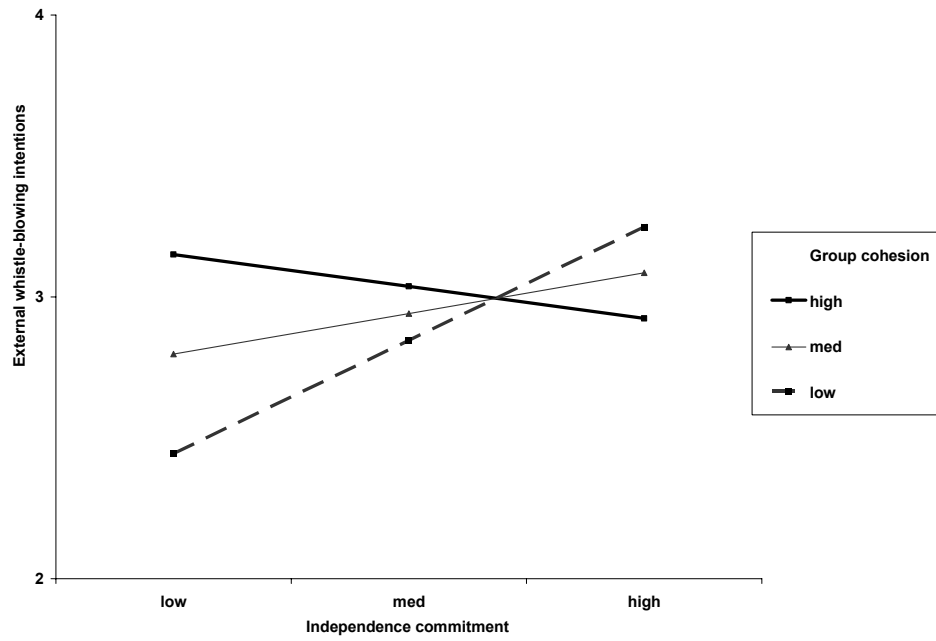
Figure 25: Plot of interaction effect of personal cost of reporting and group cohesion on external whistle-blowing intentions
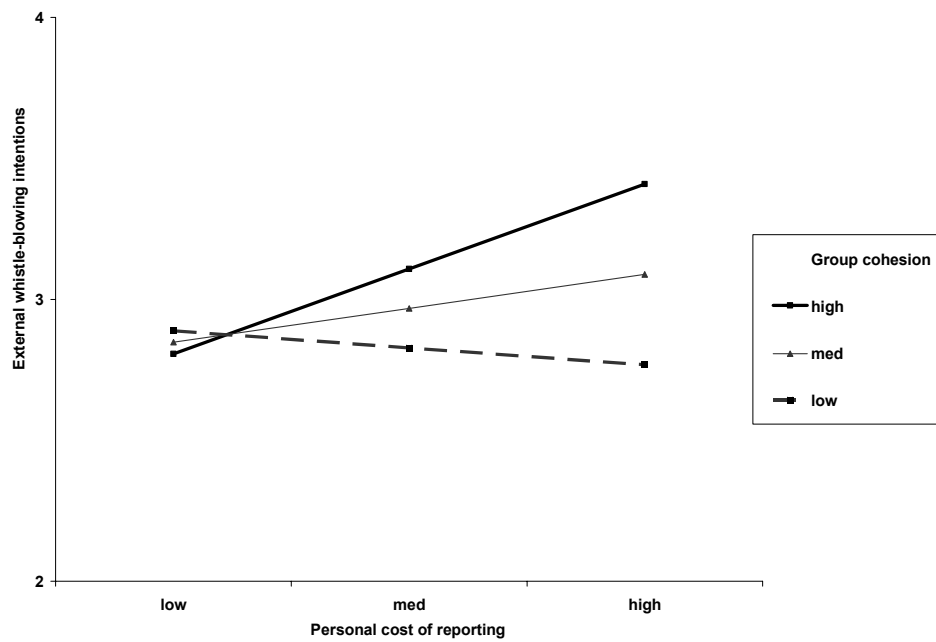
6.6.3 The moderating effect of team norms on whistle-blowing intentions

Hypothesis 4 (H4) posits that team norms should moderate the relationship between the independent variables and whistle-blowing intentions. Tables 29 and 30 show the results of the twelve hierarchical multiple regression analyses for the moderating effect of team norms on internal and external whistle-blowing intentions. Figures 26 to 31 show the graphs drawn for those significant moderating effects. Table 31 shows the simple slopes analyses for team norms.

Team norms significantly moderated the effects of four of the independent variables (attitudes, desired moral approbation, independence commitment and personal responsibility for reporting) on internal whistle-blowing intentions. Table 29 shows that four of the team norms interaction terms (the four independent variables x team norms) added significant incremental variance in internal whistle-blowing intentions (attitudes, $\beta = .184$, $\Delta R^2 = .032$, $p < .01$; desired moral approbation, $\beta = .135$, $\Delta R^2 = .018$, $p < .05$); independence commitment, $\beta = .242$, $\Delta R^2 = .057$, $p < .01$; and personal responsibility for reporting, $\beta = .149$, $\Delta R^2 = .022$, $p < .05$). These results indicated that the relationships between the independent variables (attitudes, desired moral approbation, independence commitment and personal responsibility for reporting) and internal whistle-blowing intentions were stronger and positive at higher levels of team norms than at lower levels.

Results from simple slope analyses confirmed all significant interactions derived from the regression analyses (see Table 31). In the case of attitudes, desired moral approbation, independence commitment and personal responsibility for reporting, the pattern of the interactions as revealed by the graphs (Figures 26 to 29), showed that when team norms were high, there were significant and positive relationships between these variables and internal whistle-blowing ($p < .05$). For

example, the simple slopes analyses in Table 31 shows the significant effects of attitudes ($t = 3.59$, $p < .01$), desired moral approbation ($t = 2.06$, $p < .05$), independence commitment ($t = 5.09$, $p < .01$) and personal responsibility for reporting ($t = 4.39$, $p < .01$). However, when team norms were low, attitudes, desired moral approbation, independence commitment and personal responsibility for reporting had non-significant effects on internal whistle-blowing intentions.

Team norms significantly moderated the effects of attitudes and independence commitment on external whistle-blowing (see Table 30 and Figures 30 and 31). Table 30 shows that two of the team norms interaction terms (the two independent variables x team norms) added significant incremental variance in external whistle-blowing intentions (attitudes, $\beta = .165$, $\Delta R^2 = .026$, $p < .05$; and independence commitment, $\beta = .172$, $\Delta R^2 = .029$, $p < .05$). Simple slopes analysis further confirmed that the effects of attitudes ($t = 2.60$, $p < .01$) and independence commitment ($t = 2.73$, $p < .01$) were positive and significant (Table 31). These results indicate that the relationships between the independent variables (attitudes and independence commitment) and external whistle-blowing intentions were stronger and positive at higher levels of team norms than at lower levels (Figures 30 and 31).

Table 29: Results of hierarchical regression analysis for the moderating effects of team norms on internal whistle-blowing intentions

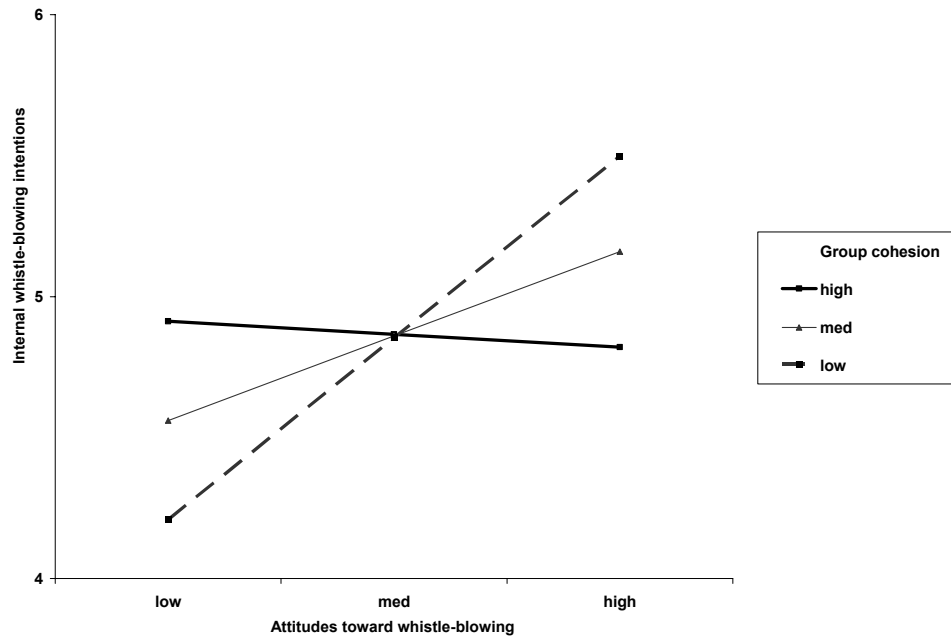|		Internal whistle-blowing intentions					
		Attitudes toward whistle-blowing			Desired moral approbation		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.012			.012		
	Gender	.014			.014		
	Tenure	-.112	.013	.013	-.112	.013	.013
2	IV	.180*	.045*	.032*	.061	.017	.004
3	Team Norms	-.082	.051	.006	-.059	.020	.003
4	IV x Team Norms	.184**	.084**	.032**	.135*	.038*	.018*
	F value	3.055**			1.327*		
		Perceived behavioural control			Independence commitment		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.012			.012		
	Gender	.014			.014		
	Tenure	-.112	.013	.013	-.112	.013	.013
2	IV	.179*	.045*	.032*	.233**	.067**	.054**
3	Team Norms	-.079	.051	.006	-.073	.072	.005
4	IV x Team Norms	.050	.054	.002	.242**	.129**	.057**
	F value	1.899†			4.970**		
		Personal responsibility for reporting			Personal cost of reporting		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.012			.012		
	Gender	.014			.014		
	Tenure	-.112	.013	.013	-.112	.013	.013
2	IV	.265**	.083**	.069**	-.169*	.041*	.028*
3	Team Norms	-.083	.089	.007	-.055	.044	.003
4	IV x Team Norms	.149*	.111*	.022*	-.064	.048	.004
	F value	4.188**			1.699		

Notes: N = 226; SDB = Social desirability bias; IV = Independent variable; Standardized Beta-Coefficients are reported; ** $p < .01$; * $p < .05$; † $p < .10$; F values at the final step are reported.

Table 30: Results of hierarchical regression analysis for the moderating effects of team norms on external whistle-blowing intentions

		External whistle-blowing intentions					
		Attitudes toward whistle-blowing			Desired moral approbation		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.085			.085		
	Gender	.078			.078		
	Tenure	-.062	.021	.021	-.062	.021	.021
2	IV	.075	.026	.005	-.035	.022	.001
3	Team Norms	-.100	.036	.009	-.085	.029	.007
4	IV x Team Norms	.165*	.062*	.026*	.014	.029	.000
	F value	2.196*			1.004		
		Perceived behavioural control			Independence commitment		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.085			.085		
	Gender	.078			.078		
	Tenure	-.062	.021	.021	-.062	.021	.021
2	IV	.137*	.040*	.019*	.081	.027	.006
3	Team Norms	-.107	.050	.011	-.094	.036	.008
4	IV x Team Norms	.064	.054	.004	.172*	.064*	.029*
	F value	1.921†			2.309*		
		Personal responsibility for reporting			Personal cost of reporting		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.085			.085		
	Gender	.078			.078		
	Tenure	-.062	.021	.021	-.062	.021	.021
2	IV	.118†	.034†	.014†	.098	.030	.009
3	Team Norms	-.101	.044	.010	-.086	.037	.007
4	IV x Team Norms	.069	.049	.005	-.074	.043	.005
	F value	1.718			1.497		

Notes: N = 226; SDB = Social desirability bias; IV = Independent variable; Standardized Beta-Coefficients are reported; ** $p < .01$; * $p < .05$; † $p < .10$; F values at the final step are reported.

Table 31: Effects of independent variables on whistle-blowing intentions at low, medium and high team norms (simple slopes analysis)

	Internal whistle-blowing			External whistle-blowing		
Team norm levels	β	SE	t	β	SE	t
Attitudes toward whistle-blowing						
High level team norms	0.440	0.123	3.59**	0.266	0.102	2.60**
Medium level team norms	0.204	0.083	2.46*	0.092	0.069	1.32
Low level team norms	-0.032	0.120	-0.26	-0.083	0.100	-0.82
Desired moral approbation						
High level team norms	0.364	0.176	2.06*	NS	NS	NS
Medium level team norms	0.134	0.116	1.16	NS	NS	NS
Low level team norms	-0.096	0.157	-0.61	NS	NS	NS
Perceived behavioural control						
High level team norms	NS	NS	NS	NS	NS	NS
Medium level team norms	NS	NS	NS	NS	NS	NS
Low level team norms	NS	NS	NS	NS	NS	NS
Independence commitment						
High level team norms	0.600	0.118	5.09**	0.275	0.100	2.73**
Medium level team norms	0.296	0.076	3.91**	0.097	0.065	1.50
Low level team norms	-0.008	0.108	-0.07	-0.081	0.092	-0.88
Personal responsibility for reporting						
High level team norms	0.454	0.103	4.39**	NS	NS	NS
Medium level team norms	0.284	0.071	3.99**	NS	NS	NS
Low level team norms	0.113	0.105	1.08	NS	NS	NS
Personal cost of reporting						
High level team norms	NS	NS	NS	NS	NS	NS
Medium level team norms	NS	NS	NS	NS	NS	NS
Low level team norms	NS	NS	NS	NS	NS	NS

Notes: ** $p < .01$; * $p < .05$. Table only shows simple slopes for those variables with significant interactions at $p < .05$ level. SE = Standard errors.

Figure 26: Plot of interaction effect of attitudes toward whistle-blowing and team norms on internal whistle-blowing intentions
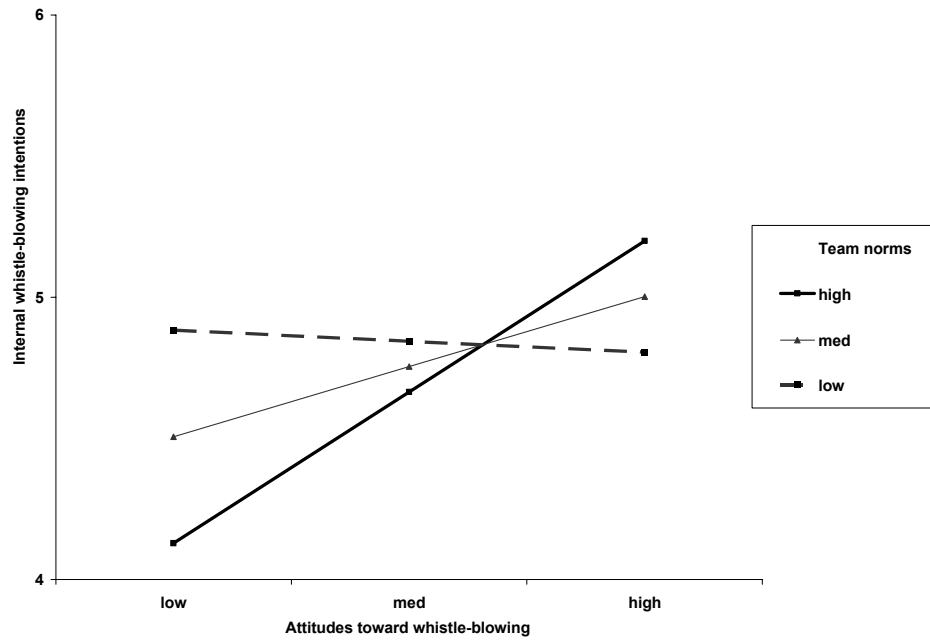
Figure 27: Plot of interaction effect of desired moral approbation and team norms on internal whistle-blowing intentions
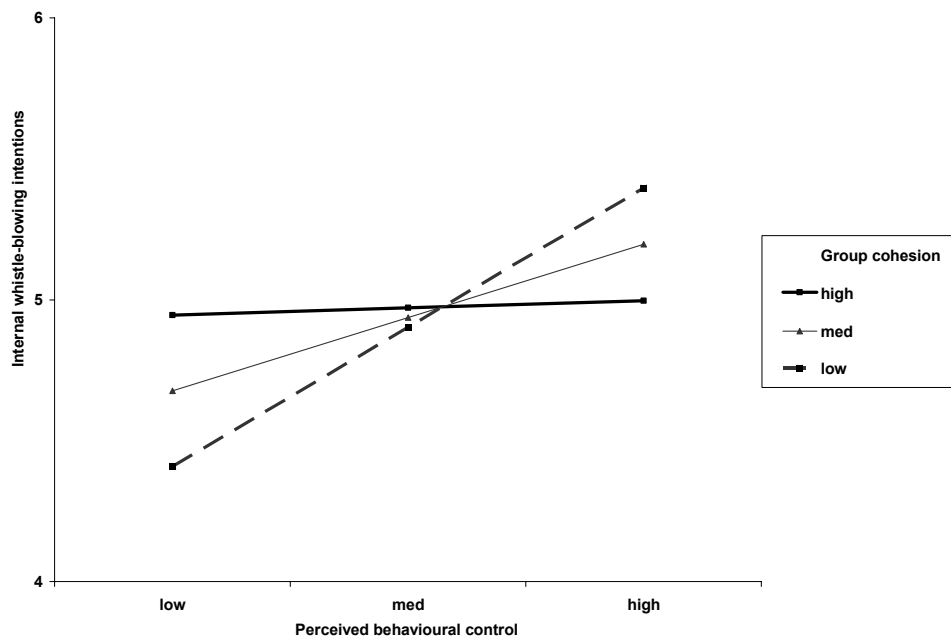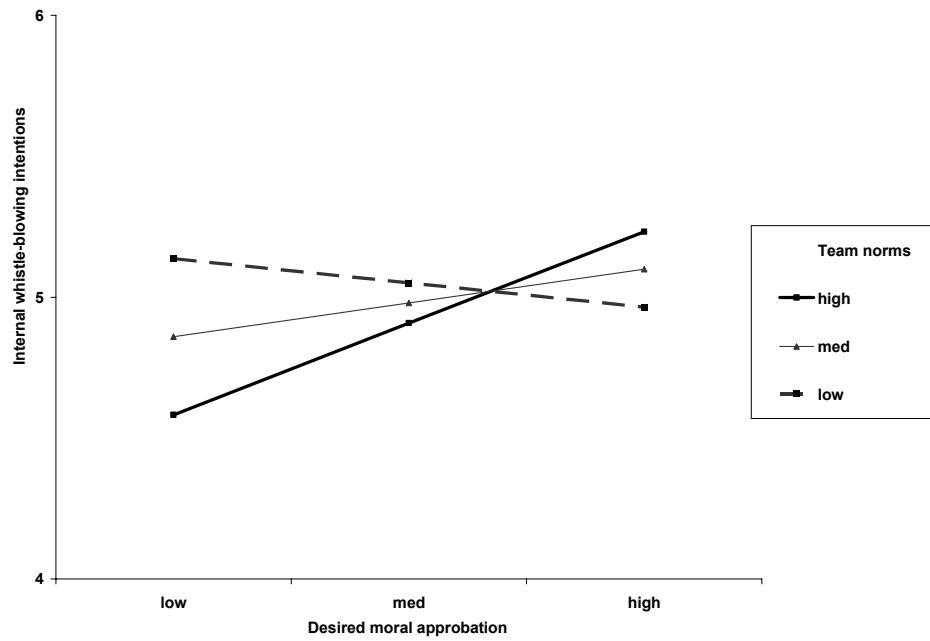
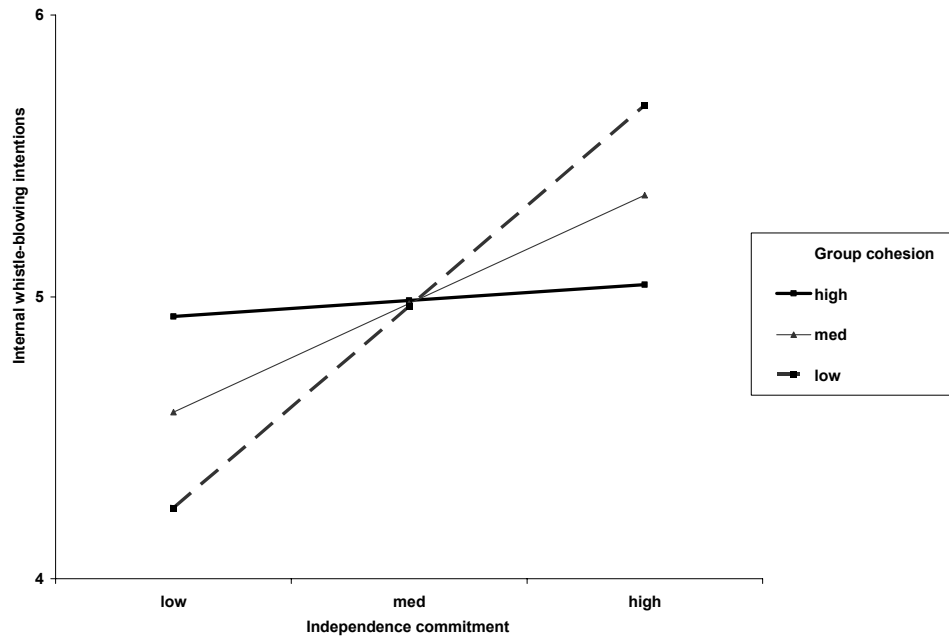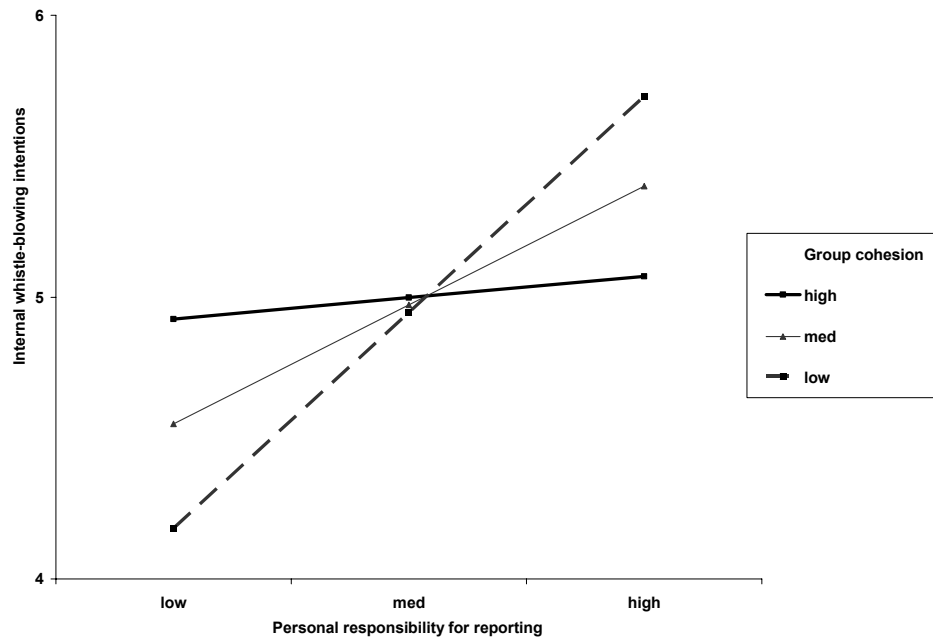**Figure 28: Plot of interaction effect of independence commitment and team norms on internal whistle-blowing intentions**
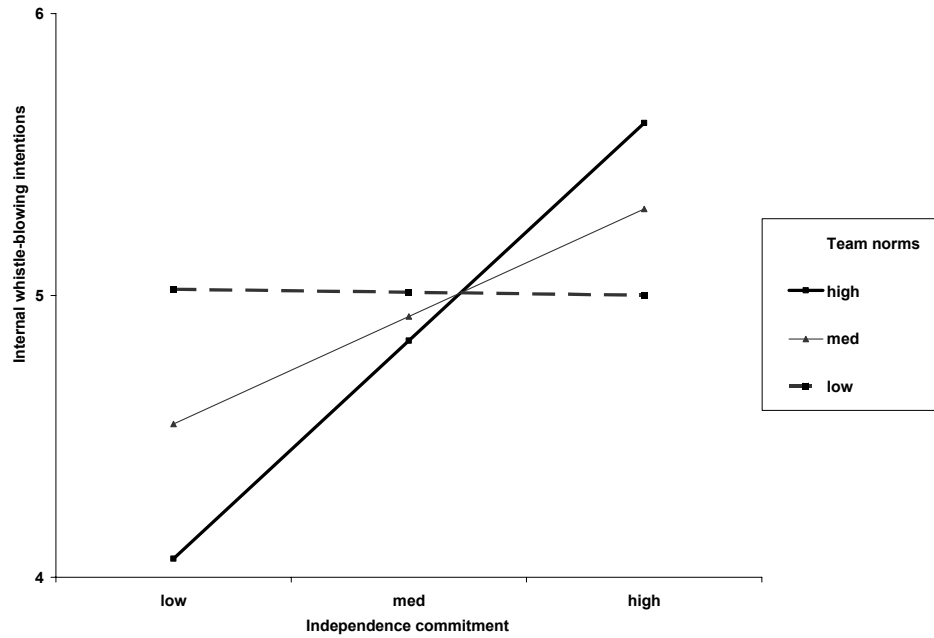
Figure 29: Plot of interaction effect of personal responsibility for reporting and team norms on internal whistle-blowing intentions
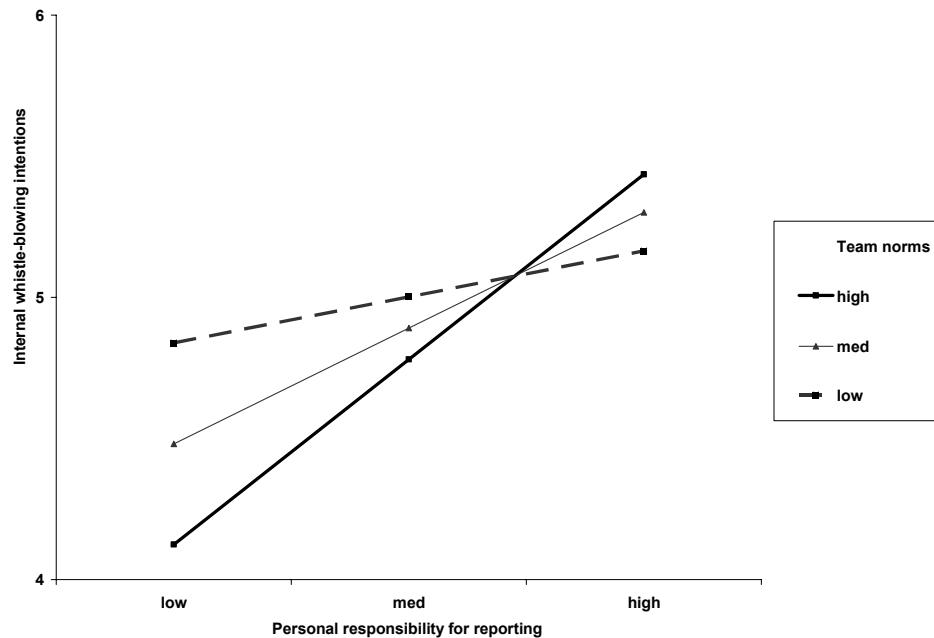
Figure 30: Plot of interaction effect of attitudes toward whistle-blowing and team norms on external whistle-blowing intentions
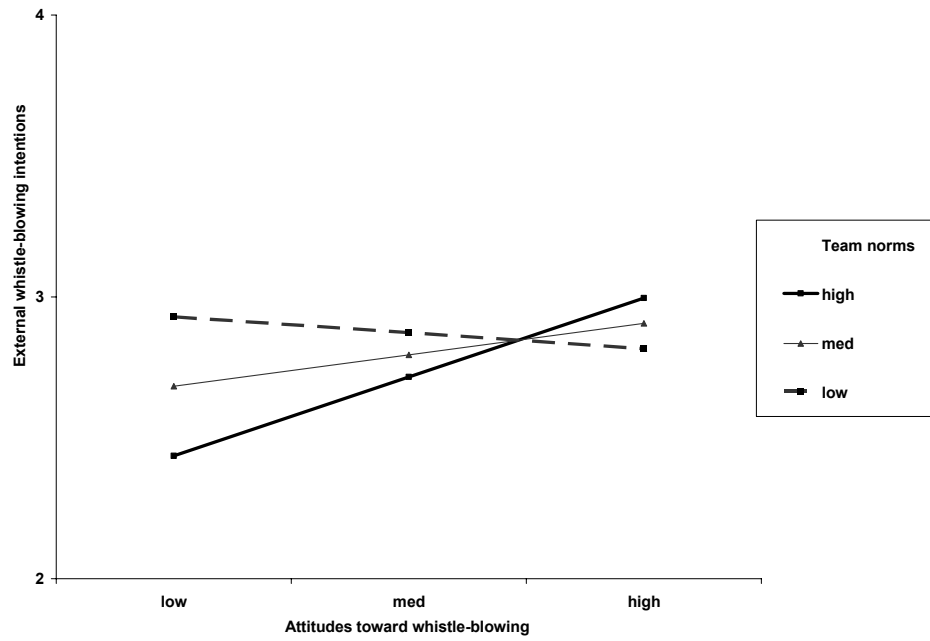
Figure 31: Plot of interaction effect of independence commitment and team norms on external whistle-blowing intentions
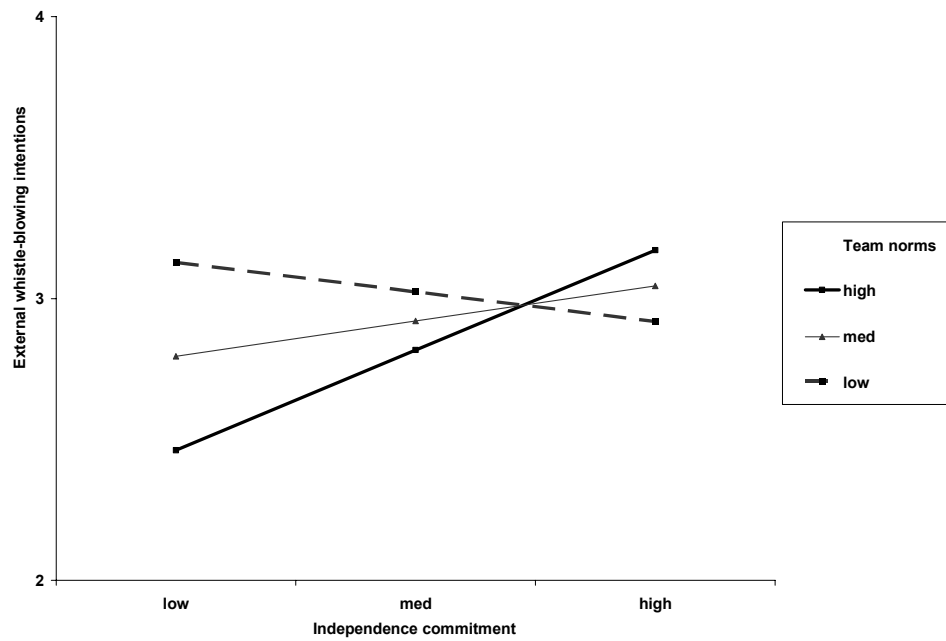
The norms, formed within groups, serve to regulate the behaviour of members. Thus, group norms may support ethical behaviour and/or unethical behaviour (Narayanan et al., 2006). These authors argued that groups that possess strong norms for acting ethically would be more likely to influence ethical behaviour. Norms of the team tend to govern the team's behaviour and as such members will respond based on their expectations of the team's consensus. These results show that the variable, team norms, as operationalised to include the testing of the ethical norms of the team, has a significant moderating effect on internal and external whistle-blowing intentions. This finding is important, given that Hooks et al. (1994) had suggested that group norms were likely to colour the perceptions of the seriousness of the wrongdoing, and possibly the ethical behaviour of the individual.

In this study, team norms (inclusive of ethical norms) were found to have a positive influence on internal whistle-blowing intentions. Overall, team norms moderated the relationship of four independent variables (attitudes, desired moral approbation, independence commitment and personal responsibility for reporting) and internal whistle-blowing intentions. However, support was found for the moderating effect of team norms on the relationship of only two independent variables (attitudes and independence commitment) and external whistle-blowing. Thus, hypothesis 4 was partially supported (See Table 35).

6.6.4 The moderating effect of perceived moral intensity on whistle-blowing intentions

Hypothesis 5 posits that moral intensity should moderate the relationship between the independent variables and whistle-blowing intentions. Tables 32 and 33 show the results of the twelve hierarchical multiple regression analyses for the moderating effect

of moral intensity on internal and external whistle-blowing intentions. Figures 32 to 37 show the graphs drawn for those significant moderating effects. Table 34 show the simple slopes analyses for moral intensity.

Moral intensity significantly moderated the effects of five of the independent variables (attitudes, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) on internal whistle-blowing intentions. Table 32 shows that the five moral intensity interaction terms (the five independent variables x moral intensity) added significant incremental variance in internal whistle-blowing intentions (attitudes, β = .287, ΔR^2 = .077, p < .01; perceived behavioural control, β = .196, ΔR^2 = .037, p < .01; independence commitment, β = .259, ΔR^2 = .061, p < .01; personal responsibility for reporting, β = .242, ΔR^2 = .056, p < .01; and personal cost of reporting, β = .179, ΔR^2 = .031, p < .05). These results indicated that the relationship between the independent variables (attitudes, perceived behavioural control, independence commitment and personal responsibility for reporting) and internal whistle-blowing intentions were stronger and positive at higher levels of moral intensity than at lower levels. The relationship between personal cost of reporting and internal whistle-blowing intentions was stronger and negative at lower levels of moral intensity. Thus, audit staff who perceived high personal costs attached to whistle-blowing, were more inclined to hold lower internal whistle-blowing intentions, when the issue has low moral intensity.

Results from simple slope analyses confirmed all significant interactions derived from the regression analyses. In the case of attitudes, perceived behavioural control, independence commitment and personal responsibility for reporting, the pattern of the interactions as revealed by the graphs (Figures 32 to 35) showed that when moral intensity levels were high, there were significant and positive relationships

between these variables and internal whistle-blowing ($p < .05$). For example, the simple slopes analysis in Table 34 shows the significant effects of attitudes ($t = 4.95$, $p < .01$), perceived behavioural control ($t = 3.88$, $p < .01$), independence commitment ($t = 5.19$, $p < .01$) and personal responsibility for reporting ($t = 5.44$, $p < .01$). However, when moral intensity levels were low, attitudes, perceived behavioural control, independence commitment and personal responsibility for reporting were not significantly related to internal whistle-blowing intentions. In terms of personal cost, when moral intensity was low, personal cost of reporting had a negative and significant effect on intentions to whistle-blow internally ($t = -3.58$, $p < .01$), but it had no significant effect when moral intensity was high (Table 34 and Figure 36).

Moral intensity significantly moderated the effect of desired moral approbation on external whistle-blowing. Desired moral approbation contributed significantly to the variance in external whistle-blowing intentions ($\beta = -.141$, $\Delta R^2 = .018$, $p < .05$) (Table 33). This result indicated that the relationship between desired moral approbation and external whistle-blowing intentions was stronger and positive at lower levels of moral intensity than at higher levels (Figure 37). Thus, when there was no perceived threat (low moral intensity), audit staff, with a high need for moral approval, were more likely to whistle-blow externally.

Flannery and May (2000) theorized that harm represents strong situations, while little harm represents weak situations. Flannery and May (2000) found that:

> Managers made more decisions that we characterised as more ethical (as opposed to less ethical) when the magnitude of consequences was high than when it was low….Furthermore, the managers' attitudes, subjective norms, self-efficacy, organizational climates, and considerations of financial costs influenced their decision intentions more when the magnitude of consequences was low than when it was high. (p. 657)

The findings of the current study show the opposite, that where there is potential harm to the firm or probability of misstatement of the financial statements to users, the individual auditor will report internally, but externally becomes another matter. Hence, the non-significant findings of the moderating effect of moral intensity on the relationship between the majority of the independent variables and external whistle-blowing intentions.

The findings also show that there was greater support for the moderating effect of moral intensity on the variables influencing internal whistle-blowing rather than external whistle-blowing. Overall, moral intensity moderated the relationship between five of the independent variables (except desired moral approbation) and internal whistle-blowing intentions, while it moderated only the relationship of desired moral approbation and external whistle-blowing intentions. Thus, partial support was found for hypothesis 5 (H5) with respect to internal whistle-blowing, but limited support for external whistle-blowing (See Table 35). The results show that moral intensity (as operationalised by magnitude of consequences, seriousness and probability of effect) is critical to whistle-blowing intentions. This study supplements the paucity of research that has tested for its moderating influence on whistle-blowing intentions.

Table 32: Results of hierarchical regression analysis for the moderating effects of perceived moral intensity on internal whistle-blowing intentions

		Internal whistle-blowing intentions					
		Attitudes toward whistle-blowing			Desired moral approbation		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.012			.012		
	Gender	.014			.014		
	Tenure	-.112	.013	.013	-.112	.013	.013
2	IV	.180*	.045*	.032*	.061	.017	.004
3	PMI	-.034	.046	.001	-.032	.018	.001
4	IV x PMI	.287**	.123**	.077**	.008	.018	.000
	F value	4.680**			0.615		
		Perceived behavioural control			Independence commitment		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.012			.012		
	Gender	.014			.014		
	Tenure	-.112	.013	.013	-.112	.013	.013
2	IV	.179*	.045*	.032*	.233**	.067**	.054**
3	PMI	-.026	.046	.001	-.045	.069	.002
4	IV x PMI	.196**	.083**	.037**	.259**	.130**	.061**
	F value	3.021**			5.014**		
		Personal responsibility for reporting			Personal cost of reporting		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.012			.012		
	Gender	.014			.014		
	Tenure	-.112	.013	.013	-.112	.013	.013
2	IV	.265**	.083**	.069**	-.169*	.041*	.028*
3	PMI	-.051	.085	.003	-.007	.041	.000
4	IV x PMI	.242**	.141**	.056**	.179*	.073*	.031*
	F value	5.497**			2.628*		

Notes: N = 226; SDB = Social desirability bias; IV = Independent variable;
PMI = Perceived moral intensity; Standardized Beta-Coefficients are reported;
** $p < .01$; * $p < .05$; † $p < .10$; F values at the final step are reported.

Table 33: Results of hierarchical regression analysis for the moderating effects of perceived moral intensity on external whistle-blowing intentions

		External whistle-blowing intentions					
		Attitudes toward whistle-blowing			Desired moral approbation		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.085			.085		
	Gender	.078			.078		
	Tenure	-.062	.021	.021	-.062	.021	.021
2	IV	.075	.026	.005	-.035	.022	.001
3	PMI	-.212**	.070**	.044**	-.209**	.060**	.038**
4	IV x PMI	-.099	.079	.009	-.141*	.078*	.018*
	F value	2.873*			2.847*		
		Perceived behavioural control			Independence commitment		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.085			.085		
	Gender	.078			.078		
	Tenure	-.062	.021	.021	-.062	.021	.021
2	IV	.137*	.040*	.019*	.081	.027	.006
3	PMI	-.213**	.084**	.045**	-.215**	.072**	.045**
4	IV x PMI	-.111	.096	.012	-.041	.073	.002
	F value	3.555**			2.651*		
		Personal responsibility for reporting			Personal cost of reporting		
Step	Variable	β	R^2	ΔR^2	β	R^2	ΔR^2
1	SDB	.085			.085		
	Gender	.078			.078		
	Tenure	-.062	.021	.021	-.062	.021	.021
2	IV	.118†	.034†	.014†	.098	.030	.009
3	PMI	-.221**	.082**	.047**	-.198**	.069**	.039**
4	IV x PMI	-.035	.083	.001	.034	.070	.001
	F value	3.027**			2.527*		

Notes: N = 226; SDB = Social desirability bias; IV = Independent variable;
PMI = Perceived moral intensity; Standardized Beta-Coefficients are reported;
** $p < .01$; * $p < .05$; † $p < .10$; F values at the final step are reported.

Table 34: Effects of independent variables on whistle-blowing intentions at low, medium and high moral intensity (simple slopes analysis)

	Internal Whistle-blowing			External Whistle-blowing		
Moral intensity levels	**β**	**SE**	**t**	**β**	**SE**	**t**
Attitudes toward whistle-blowing						
High level moral intensity	0.569	0.120	4.95**	NS	NS	NS
Medium level moral intensity	0.234	0.081	2.89**	NS	NS	NS
Low level moral intensity	-0.128	0.116	-1.11	NS	NS	NS
Desired moral approbation						
High level moral intensity	NS	NS	NS	-0.172	0.148	-1.16*
Medium level moral intensity	NS	NS	NS	0..013	0.105	0.13
Low level moral intensity	NS	NS	NS	0.199	0.125	1.59*
Perceived behavioural control						
High level moral intensity	0.362	0.093	3.88**	NS	NS	NS
Medium level moral intensity	0.159	0.070	2.25*	NS	NS	NS
Low level moral intensity	-0.044	0.107	-0.41	NS	NS	NS
Independence commitment						
High level moral intensity	0.595	0.115	5.19**	NS	NS	NS
Medium level moral intensity	0.280	0.076	3.68**	NS	NS	NS
Low level moral intensity	-0.035	0.112	-0.31	NS	NS	NS
Personal responsibility for reporting						
High level moral intensity	0.556	0.102	5.44**	NS	NS	NS
Medium level moral intensity	0.297	0.070	4.25**	NS	NS	NS
Low level moral intensity	0.038	0.097	0.39	NS	NS	NS
Personal cost of reporting						
High level moral intensity	0.017	0.089	0.19	NS	NS	NS
Medium level moral intensity	-0.152	0.065	-2.32*	NS	NS	NS
Low level moral intensity	-0.321	0.090	-3.58**	NS	NS	NS

Notes: ** $p < .01$; * $p < .05$. Table only shows simple slopes for those variables with significant interactions. NS=Non-significant. SE = Standard errors.

Figure 32: Plot of interaction effect of attitudes toward whistle-blowing and perceived moral intensity on internal whistle-blowing intentions
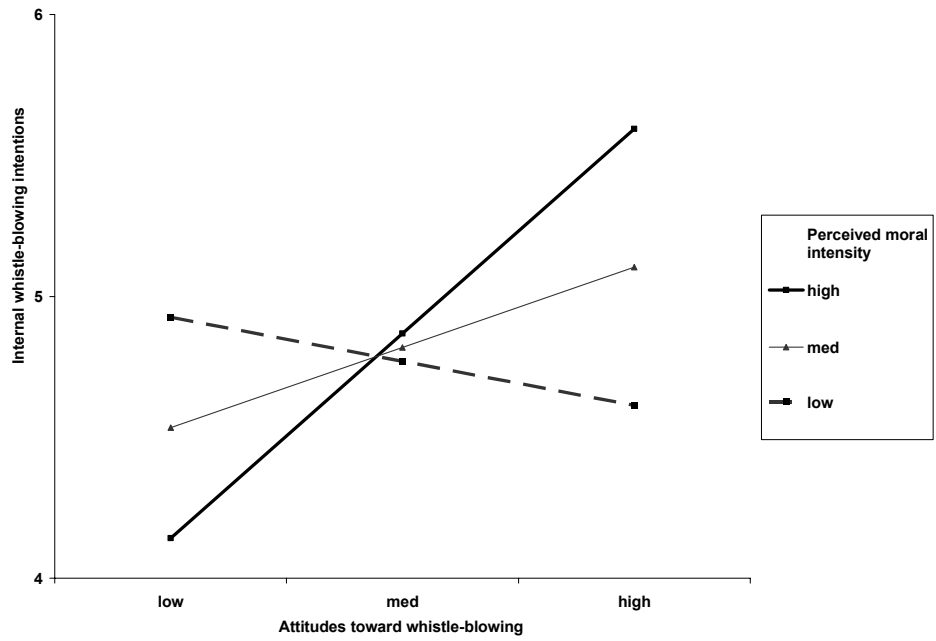
Figure 33: Plot of interaction effect of perceived behavioural control and perceived moral intensity on internal whistle-blowing intentions
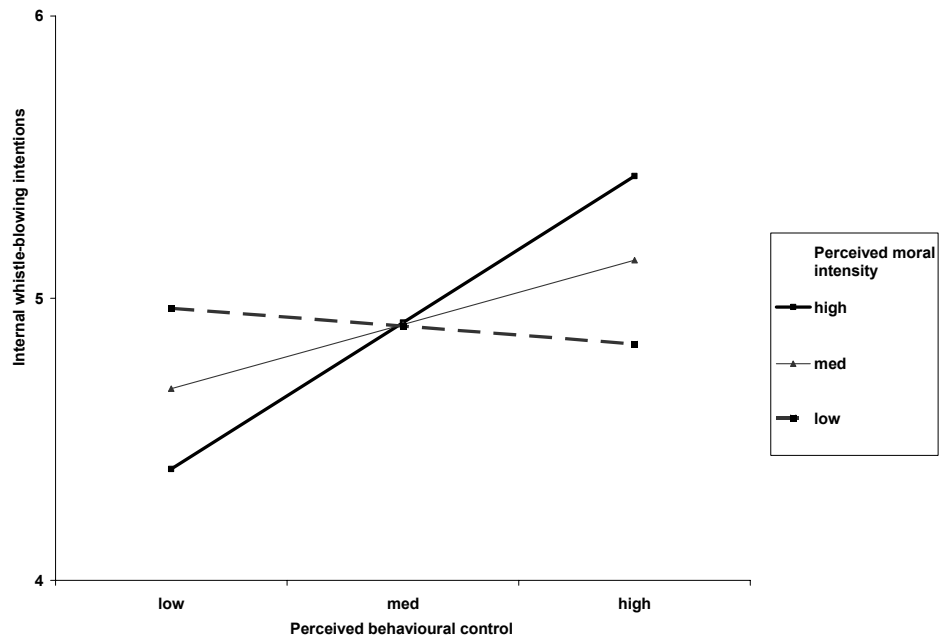
Figure 34: Plot of interaction effect of independence commitment and perceived moral intensity on internal whistle-blowing intentions
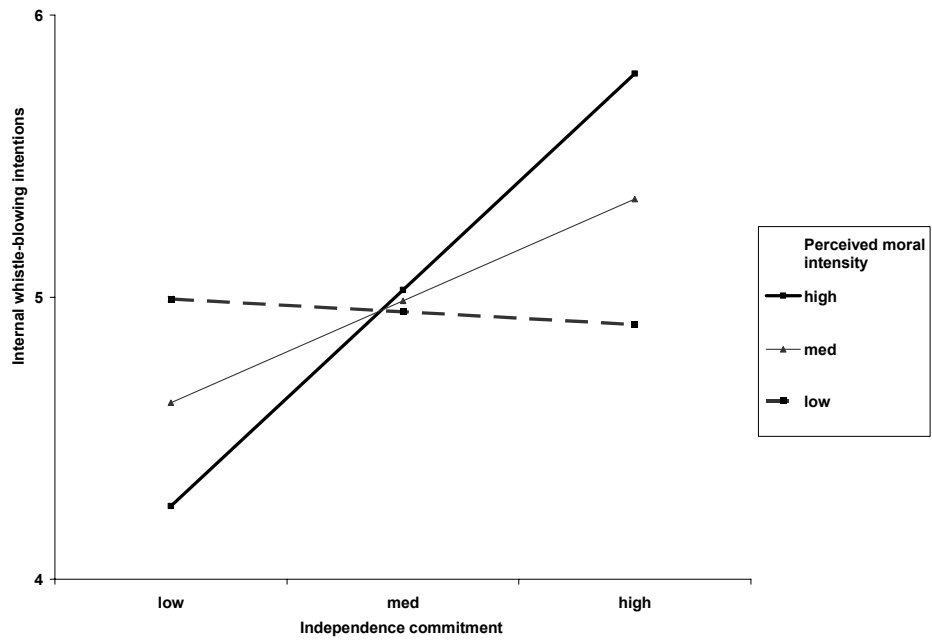
Figure 35: Plot of interaction effect of personal responsibility for reporting and perceived moral intensity on internal whistle-blowing intentions
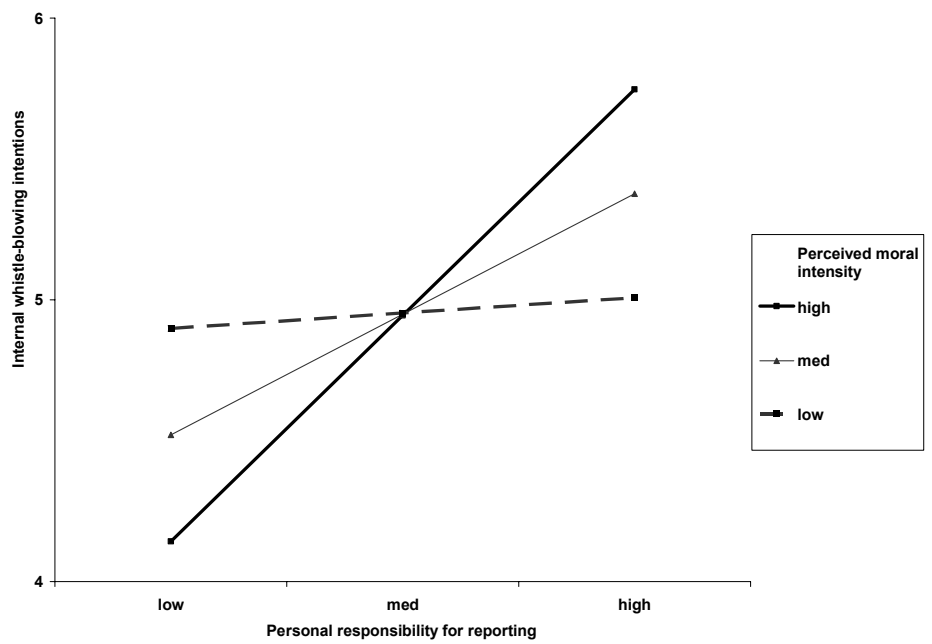
Figure 36: Plot of interaction effect of personal cost of reporting and perceived moral intensity on internal whistle-blowing intentions
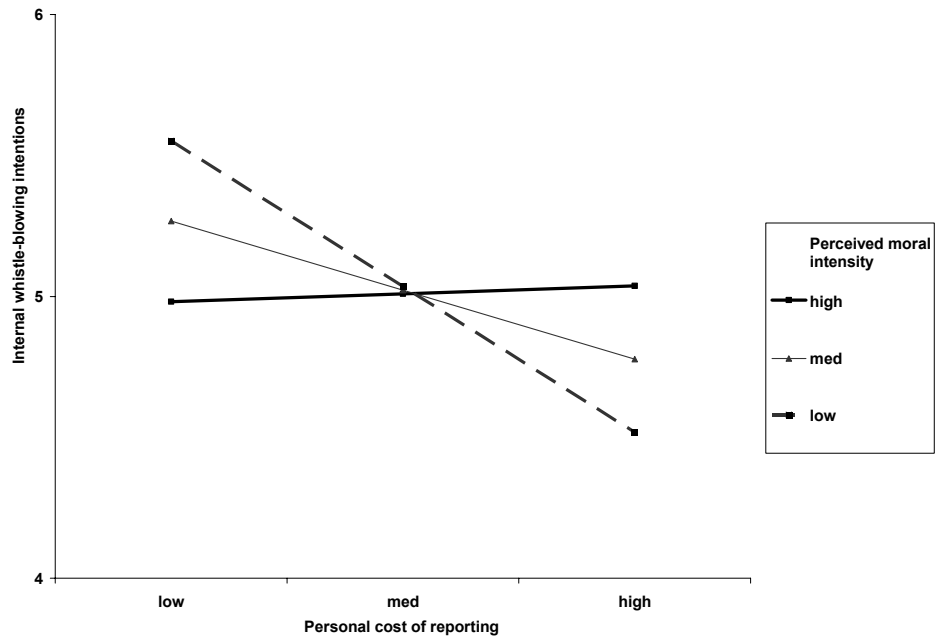
Figure 37: Plot of interaction effect of desired moral approbation and perceived moral intensity on external whistle-blowing intentions
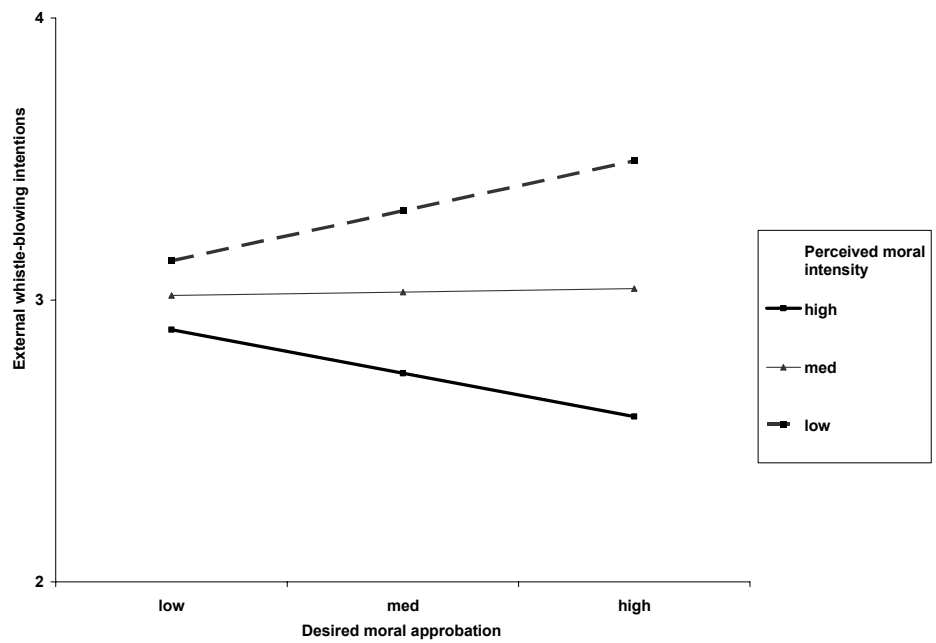
6.7 Summary of the major findings based on the hypotheses

Table 35 summarizes the results for the hypotheses tested in this chapter. Overall, support was found for the main effects of all of the independents variables (except desired moral approbation) on internal whistle-blowing intentions. However, support was found for only perceived behavioural control effect on external whistle-blowing. Partial support was found for the moderating effects of perceived organizational support, group cohesion, team norms and moral intensity on the relationship between the majority of independent variables and internal whistle-blowing intentions. Partial support was also found for the moderating effects of perceived organizational support, team norms, group cohesion, and moral intensity on the relationships between fewer independent variables and external whistle-blowing intentions.

Given that the study found greater support for direct and moderating effects for internal whistle-blowing (rather than external whistle-blowing), it demonstrates that factors responsible for internal whistle-blowing may be more easily identifiable than those responsible for driving external whistle-blowing. This is not surprising, given that prior evidence has revealed that auditors are reluctant to engage in external whistle-blowing (Kaplan and Whitecotton, 2001) and the factors associated with this form of whistle-blowing are even more complex to grasp. External whistle-blowing may not be a simple or straightforward process, since there may be a myriad of extraneous variables that can account for the failure of moral intensity, team norms, perceived organizational support, and group cohesion to moderate the effects of most of the independent variables on external whistle-blowing.

Table 35: Summary of results of hypotheses

Hypotheses		Results for Internal Whistle-blowing Intentions	Results for External Whistle-blowing Intentions
Main Effects (Independent Variables)			
H1a	Attitudes toward whistle-blowing	Full Support **(+)**	No Support
H1b	Desired moral approbation	No Support	No Support
H1c	Perceived behavioural control	Full Support **(+)**	Full Support **(+)**
H1d	Independence commitment	Full Support **(+)**	No Support
H1e	Personal responsibility for reporting	Full Support **(+)**	Marginal Support **(+)** (p < .10)
H1f	Personal cost of reporting	Full Support **(-)**	No Support
Moderators			
H2	Perceived organizational support (POS)	**Partial Support** *When POS is high,* 1) Attitudes **(+)** 2) Perceived behavioural control **(+)** 3) Independence commitment **(+)** 4) Personal responsibility for reporting **(+)** *When POS is low,* 5) Personal cost of reporting **(-)**	**Partial Support** *When POS is low,* 1) Attitudes **(+)** 2) Perceived behavioural control **(+)** 3) Desired moral approbation **(+)** (marginally supported at p < .10) *When POS is high,* 4) Personal cost of reporting **(+)**
H3	Group cohesion	**Partial Support** *When group cohesion is low,* 1) Attitudes **(+)** 2) Perceived behavioural control **(+)** 3) Independence commitment **(+)** 4) Personal responsibility for reporting **(+)** 5) Desired moral approbation **(+)** (marginally supported at p < .10)	**Partial Support** *When group cohesion is low,* 1) Independence commitment **(+)** 2) Attitudes **(+)** (marginally supported at p < .10) *When group cohesion is high,* 3) Personal cost of reporting **(+)**

	Hypotheses	Results for Internal Whistle-blowing Intentions	Results for External Whistle-blowing Intentions
H4	Team Norms	**Partial Support** *When team norms are high,* 1) Attitudes **(+)** 2) Desired moral approbation **(+)** 3) Independence commitment **(+)** 4) Personal responsibility for reporting **(+)**	**Partial support** *When team norms are high,* 1) Attitudes **(+)** 2) Independence commitment **(+)**
H5	Perceived Moral Intensity	**Partial Support** *When moral intensity is high,* 1) Attitudes **(+)** 2) Perceived behavioural control **(+)** 3) Independence commitment **(+)** 4) Personal responsibility for reporting **(+)** *When moral intensity is low,* 5) Personal cost of reporting **(-)**	**Partial Support** *When moral intensity is low,* 1) Desired moral approbation **(+)**

Notes: Partial support indicates where the moderator did not interact significantly with *all* of the independent variables.
(+) Positive effect; (-) Negative effect.

CHAPTER 7: DISCUSSION OF QUALITATIVE AND QUANTITATIVE FINDINGS

7.0 Introduction

This chapter presents the findings from the interview stage of the research. The chapter first explores the meaning, willingness and channels of whistle-blowing. The chapter also illustrates the influence of individual factors (attitudes, desired moral approbation, perceived behaviour control, independence commitment, personal responsibility for reporting and personal cost of reporting) and the moderating effects of perceived organizational support, moral intensity, team norms and group cohesion on auditors' whistle-blowing intentions. It further examines the perceived consequences of whistle-blowing on the audit firm, the profession and society as well as the recommendations offered by interviewees.

The results from the quantitative phase in chapter 6 are integrated and discussed with the qualitative findings. In presenting the results, every effort was made to feature the data collected in this section. The data collected tend to cut across themes. However, for this study, it was found that combining the data into manageable themes provided clarity and consistency and added to the understanding and meaning of the results. The themes were explored in relation to what was previously discussed in the literature review and the research questions. The aim of the qualitative phase of this study is to contextualize the findings from the quantitative stage.

7.1 Research questions

The following research questions were used to meet the research objectives.

Research Question 1:   How willing are external auditors to whistle-blow on wrongdoing committed by colleagues in the audit firm?

Research Question 2:   What are the preferred channels of reporting wrongdoing among external auditors?

Research Question 3:   What is the role of individual factors on external auditors' ability to whistle-blow?

Research Question 4:   What is the role of team and contextual factors on external auditors' ability to whistle-blow?

Research Question 5:   What are the perceived consequences of whistle-blowing among external auditors?

Research Question 6:   How can whistle-blowing be increased among external auditors?

7.2 Willingness to report questionable acts

Research question 1 (RQ1) sought to determine the willingness of external auditors to whistle-blow on wrongdoing committed by colleagues in the audit firm. There was clear consensus that whistle-blowing involves the internal and external reporting of unethical or illegal acts occurring within the audit firms. For example, respondents used terms such as unlawful, illegal, unethical, ethical violations and independence violations to connote an understanding of whistle-blowing. They felt that unethical or illegal acts encompassed how audit firms may conduct business, and how policies or principles observed by employees are likely to be manipulated within the audit firms. The accounting regulator stated:

> **Whistle-blowing, really and truly is a matter of employees. People, who are aware of unethical acts that occur within the organization, report to a responsible individual who can take the remedial action, which is necessary to correct that unethical or illegal act (Accounting regulator - BDWB02).**

The descriptive statistics from the quantitative phase in chapter 6 revealed that auditors perceived that they had a moderately high tendency to report internally. In the qualitative phase, most senior audit staff (i.e. the partner and managers) expressed a willingness to report wrongdoing. This willingness seemed to be motivated by factors such as moral obligation, preservation of the integrity of the profession and audit firm, public trust, position within the firm, level of materiality, actual evidence, the type of wrongdoing and the need to reduce acts of negligence. The regulators and practitioners took a moralistic stance, whereby they felt that auditors are expected to uphold the trust placed by society.

The legal regulator argued that:

There is a responsibility which is first owed to the people who stand to be hurt, when these things happen (Legal regulator - BDWB01).

This was corroborated by the accounting regulator, who stated:

It comes back to the same thing; knowing right from wrong and materiality. It truly relates to those factors (Accounting regulator - BDWB02).

Thus, based on Rawls' (1971) notion of justice, auditors should whistle-blow since they would be acting within the realm of free speech, based on their perceptions of justice and fairness to society.

The need to preserve the integrity of the profession appeared to fuel the moral obligation to report. This is evident from the claim of a senior auditor, who explained:

As an auditor, the onus is on me because the users and shareholders are not in a position to know what's going on, unless I expose it in some way (Senior auditor - BDWB11).

The regulators, partners and audit managers were willing to whistle-blow internally in order to uphold the integrity of the profession, the audit firm and maintain

high morals. This may support Kant's (1964) deontological view that there are issues that are inherently right or wrong, since one has a duty to do what is right. These findings further support De George's (2006) view that whistle-blowing may be morally driven. However, the focus groups, practitioners, juniors and audit seniors noted that the willingness to report wrongdoing was encouraged by the open-door policy within the audit firms, but moderated by their fear of reprisals and the need to have high organizational support.

Some respondents felt that actual evidence of the wrongdoing and the need to avoid negligence claims in the firms could play a critical role in their intentions to whistle-blow. For example, one practitioner suggested:

> **Quite willing, but it must be factual and not based on suspicion. There must be a supporting body of evidence to justify the claim (One practitioner - BDWB03).**

While an audit manager suggested:

> **If it is a case of a gross negligent act, and if it affects wider society, it is ethical and necessary to say something (An audit manager - BDWB08)**.

In contrast, fear of reprisals was a major concern and served as a deterrent for those respondents who expressed unwillingness to report questionable acts within the firms. These fears were particularly more noticeable among the junior staff, less experienced managers and a practitioner. Most of the junior members of staff, who were younger and less experienced than their senior counterparts, viewed loyalty to the organization and other staff as playing a secondary role to self-interest. This is corroborated by an audit junior (BDWB14), who commented:

> **I would report if it is detrimental to me and other employees. Honestly, first though, I would say, 'myself' but eventually, outside of thinking about myself, I will start thinking about the other employees (Audit junior - BDWB14).**

Self-preservation was also important for one practitioner, who had worked for a long time in an international accounting firm. He stated:

> **I would not be keen to report it. Certainly, not in the firm! I'd probably be more inclined to make that declaration outside of the firm, due to fear of reprisals. The structure of the firm needs to be understood, especially due to promotion or advancement in the firm (Practitioner - BDWB03)**

This revelation appears to be based on the practitioner's years of experience and sound understanding of the culture of the accounting firm, hence the reluctance to report. Members in both focus groups demonstrated a general reluctance to report wrongdoing (Kaplan, 1995). This reluctance to report seems to be influenced by the perceived high cost of reporting, and the impact of the report on the firm and the individual (perpetrator), who may be either a colleague or team member.

Respondents were also asked whether they had observed any wrongdoing and their willingness to report. The majority reported that they had not observed any wrongdoing. Those respondents, who observed wrongdoing, reported that they were not significant enough to warrant a report or be investigated.[24] A senior female manager, who had observed wrongdoing committed by a friend, shared:

> **There was one instance where someone signed something that they should not have. Let's say, sign a form that was meant for a particular person. We were friends but I thought about it and it was not right and I did report it. It was a struggle but I did the right thing (Senior female manager - BDWB08)**

This may illustrate the importance of maintaining high moral standards by some individuals, even in situations where the act of whistle-blowing may negatively affect relationships.

Overall, the findings from both phases (i.e. quantitative and qualitative) support each other. With respect to RQ1, these results indicate a general reluctance to report

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[24] It is quite possible that respondents may have been unwilling to share sensitive information on actual wrongdoing and whistle-blowing experiences within the audit firms.

wrongdoing, especially among junior staff members. Table 36 summarises the willingness to report wrongdoing from the various groups.

Table 36: Summary of responses on willingness to report wrongdoing

Level of respondents	Common themes
Regulators	Willingness to report
Sole practitioners	Mixed willingness to report
Partner	Willingness to report
Audit managers	Willingness to report
Audit seniors	Mixed willingness to report
Audit juniors	General unwillingness to report
Focus groups	Overwhelming unwillingness to report

7.3 Channels of reporting wrongdoing

The results in Chapter 6 found that auditors perceived that internal reporting was the more preferred channel to external reporting. Research question 2 (RQ2) explored these channels of whistle-blowing among auditors. The consensus amongst the various levels of audit practitioners was that the internal channel would be more appropriate for reporting wrongdoing within an audit firm. Reasons offered for choosing internal reporting included the need to discourage external whistle-blowing, a chance to resolve matters internally, the audit firm's culture and the importance of maintaining anonymity and confidentiality.

Both regulators felt that internal reporting was the preferred option. The legal regulator reported:

> **Internal should be, at least, the first approach, because you really don't want to encourage people to go outside as the first approach. That is why it is important to keep systems in firms or have an alternative channel to the main (Legal regulator - BDWB01).**

While the accounting regulator stated:

> **Internal is the most appropriate one to begin with and it also depends on the level. Because if something unethical or illegal happens, it is a matter for you to try to get the organization to change (Accounting regulator - BDWB02)**.

Audit firms' staff shared similar perspectives to the regulators. One member of a focus group argued:

> **If you see something wrong within your organization, it is up to you to report it, because your superiors may not. It is then what is done when you report it. If you do nothing, it may become more serious. I think if it is your organization, it should be reported internally. That should be your first step.**

Being able to approach the risk and ethics managers and partners appeared encouraging for some respondents. A female audit senior shared:

> **I would go internal, and then wait a while with our risk management partner, and then from there, go external. But I wouldn't skip management. I don't see the need to go through the anonymous hotline, if it will be dealt with appropriately. You have to trust in the process (Female audit senior - BDWB12).**

Similarly, another female audit senior corroborated this finding, but elaborated further by stating:

> **I would most likely go to my manager first. In auditing, you always respect the chain of command. Nobody likes the idea of someone going over their head (Female audit senior - BDWB13).**

A male junior staff accountant pointed out:

> **It depends on what outcome I want to achieve. Primarily internal first, I do not want to 'air the dirty laundry'. I want to get it corrected first, internally (Male junior staff accountant - BDWB17**).

Several respondents alluded to the importance of control and anonymity of the internal reporting channel.

One male audit senior reported:

Ideally, you should start with anonymous internal reporting. You do that internally first and then you will leave the external reporting for where the internal systems break down and they do not function (Male audit senior - BDWB10).

Corroborating this finding, one senior female manager reported:

Internal channel because I would hope that it is something that can be dealt with in-house. I would not want to be the person who 'rats' out on my firm. I would prefer anonymous (Senior female manager - BDWB08).

Another experienced female manager suggested:

Internal because it seems a little more sheltered. You feel like you can have a little more control over the whole process (Female manager - BDWB07).

Thus, the results from the quantitative phase are supported by the responses from the interview phase, whereby the preferred channel for reporting wrongdoing by auditors in the sample was internal reporting. The preference for the internal channel in this study answers RQ2. This is consistent with the argument of Near and Miceli (1995), who suggested that internal reporting is preferred as it allows the organization to internally correct the wrongdoing before "airing its dirty linen in public." Furthermore, this finding supports Miceli et al.'s (2009) argument that internal whistle-blowing may be viewed as prosocial behaviour, exhibited by employees, who wish to protect the organization's reputation. Internal whistle-blowing may be considered as the most effective control mechanism for amicable and effective resolution of organizational matters (Hooks et al., 1994) and a means of discouraging external reporting. This finding contradicts Jubb's (1999) argument that internal reporting is not whistle-blowing. In addition, it is believed that an awareness of the reporting protocol of the audit firm may encourage and motivate persons to utilize the available internal channels. As a result, the external channels will more likely be engaged, if the internal systems fail to live up to their expectations or obligations.

Most respondents preferred ***anonymous*** internal reporting. The requirement for the channel to be anonymous was particularly noticeable among the younger, less experienced audit managers and the junior staff. This may signify that the internal channel is perceived to provide some measure of safety and control over the process, and allows the audit firm the opportunity to effect change. However, the preference for anonymous reporting may also suggest the need to allay fear of reprisals associated with whistle-blowing.

The findings also illustrated that the majority of managers and junior members of staff demonstrated a level of trust in their respective organization's commitment to address such issues internally. This confidence may have been fostered by the culture of the organization that lends credence to whistle-blowing. As a result, there is the likelihood that internal reporting will be more readily utilised. However, most respondents felt that the decision to report within the firm might be reduced, if the perpetrator was a senior member of staff.

7.4 The role of individual factors on auditors' whistle-blowing intentions

This section examined the role of antecedents (individual level factors such as attitudes, desired moral approbation, perceived behavioural control, independence commitment, personal responsibility for reporting, and personal costs of reporting) on external auditors' whistle-blowing intentions (research question 3 (RQ3)). It further links these findings to hypotheses 1a to 1f from the quantitative phase.

7.4.1 Attitudes toward whistle-blowing

In chapter 6, hypothesis 1a was found to be supported for the main effects of attitudes having a direct relationship on auditors' whistle-blowing intentions. In the interview phase, the majority of the respondents felt that the importance of whistle-blowing was

directly related to independence beliefs, integrity, trust and preservation of the audit firm's reputation. A female staff accountant reported:

> **Extremely important. …. As an auditor, your responsibility is to be independent, to be a representative on behalf of stakeholders. If you see a situation going on, and you don't go to the individual and tell them, it could affect the whole auditing profession. Your job is going to be jeopardized and your reputation is at stake (Female staff accountant - BDWB14).**

Most respondents felt duty bound to report wrongdoing, as failure to do so may be detrimental to the audit firm as well as their career prospects. The basic premise of the profession is that integrity is its main asset. Most respondents emphasized that the importance of being able to report without fear of reprisals could encourage whistle-blowing. This is clearly evident in the report of one sole practitioner, who stated:

> **It is important from the perspective that there must be an avenue where an employee can express his concerns without fear of reprisals. A person, who is aware that he has this privilege, tends to be more vigilant in his work performance because he has recourse (Practitioner - BDWB03).**

However, the legal regulator felt that auditors were not inclined to whistle-blow (Kaplan, 1995), and blamed the problems in the current global market for this reluctance. He stated:

> **There is no way or hardly a challenge to find an explanation why these things could blow up suddenly and could not have been discovered earlier by auditors and accountants. Invariably, you find that auditors and accountants are either party to it or choose not to say anything, for whatever reason (Legal regulator - BDWB01).**

This regulator's perception seems to agree with Hanlon's (1994) view that audit firms are interested in profit making and that members of staff are indoctrinated to appease clients.

The majority of auditors conceded that the branding of the whistle-blower (hero or traitor) may depend on whether the whistle-blowing act protects or damages the audit firm's reputation. These perceptions were formed based on the consequences of

reporting, high moral principles and the need to preserve the integrity of the profession and the firm. From the accounting regulator's perspective:

> **Valuable information (which may be unethical) may be unearthed which could have remained virtually unknown and has the capacity to significantly affect the reputation of the audit firm and profession (Accounting regulator - BDWB02).**

Most respondents felt that labels such as traitor, snitch, rat or troublemaker (Near and Miceli, 1995; Camerer, 1996) were attributed to persons who reported their colleagues (internally and externally), because it is perceived as a breach of loyalty to the audit firm and colleagues. Therefore, any deviation from the perceived norm of loyalty by a colleague would be considered as betrayal. Labelling the whistle-blower appears to stem from the observer's perceived consequences of reporting. This was especially evident among the junior members of staff, who reported that the whistle-blower will be considered as a hero or traitor, depending on who stands to benefit. For example, if the reputation of the audit firm was preserved, jobs retained and the audit firm spared from litigation, then the whistle-blower may be perceived as a hero. However, it was felt that if major losses were experienced by the audit firm, then the whistle-blower may be considered as a traitor. A partner refuted the labelling by pointing out:

> **I don't know that I would use any of those two labels on him: hero or traitor. The person would be doing what is expected of him especially, if done properly (Partner – BDWB05).**

This comment suggests that there may be a vested interest for the partner to be informed of any wrongdoing within the audit firm. However, the question that lingers is which label (hero or traitor) should be attached, if one reports on a partner within the firm. It was noticeable within one focus group that there was a heated debate on the labelling of the whistle-blower. One elderly male auditor argued that the whistle-

blower may be perceived as a traitor, if he or she reports the wrongdoing of top management to an external channel. He viewed this as a breach of loyalty, since the employee is morally obligated to report it to the owners (i.e. partners).

The results from the quantitative phase corroborated responses from the interviews in which attitudes toward whistle-blowing are perceived favourably and having a positive and direct relationship on auditors' internal whistle-blowing intentions. However, both phases revealed respondents' fears of the possible ramifications associated with whistle-blowing, which may negatively impact the profession, the audit firm and the individual's future career in auditing. Overall, the majority deemed whistle-blowing as an important control mechanism in audit firms, as it may aid in the identification of any fraudulent or illegal activities within the audit firm (Hooks et al., 1994). In addition, respondents felt that the public expects auditors to be accountable to them and therefore whistle-blowing is deemed as acting in the public's interest.

The above findings show that audit staff and regulators agreed that the firm's image should be protected and that auditors are expected to act with integrity and in the public's interest, as supported by Tetlock's (1985) accountability argument. However, there is a general feeling that auditors will be perceived as traitors by the audit firm's hierarchy, if they blow the whistle on the audit firm, and its reputation is subsequently tarnished. For instance, the more senior and experienced managers believe that it is the client that will perceive the whistle-blower as a traitor, given the perceived loyalties and conflicts (ethical, legal and professional restrictions) of the profession, which are likely to prevent the reporting of certain information (Mitschow and Langford, 2000). Table 37 presents a summary of the responses of the various groups.

Table 37: Summary of responses on attitudes toward whistle-blowing

Level of respondents	Features of whistle-blowing	Level of importance
Regulators	• Unlawful acts • Unethical acts • Internal and external reporting	Absolutely important–internally and externally
Practitioners	• Illegal • Unethical • Unprofessional • Internal and external reporting • Independence impairment	Mixed importance (divided on internal and external reporting)
Partner	• Ethical violations/violations of law • Ethical breaches in profession • Impaired relationship • Reporting to appropriate authority within the audit firm	Important - prefers internal only
Audit managers	• Unethical • Fraud • Ethical issues • Unwanted behavioural issues • Fraudulent activity • Wrongdoing • Internal/external reporting	Important - prefers internal only
Audit seniors	• Illegal • Unethical • Ethical issues • Breaches in organizational policies and procedures • Fraud and theft • Internal and external reporting	Important - prefers internal only
Audit juniors	• Breaches in corporate governance • Fraudulent activity • Impropriety • Wrongdoing • Reporting to higher authority within the firm	Mixed importance, but prefers internal only and anonymous channel
Focus Groups	• Illegal • Unethical acts • Wrongdoing • Internal and external reporting	Mixed importance, but prefers internal only and anonymous channel

7.4.2 Desired moral approbation

In chapter 6, it was hypothesized that desired moral approbation would have a significant and positive relationship with whistle-blowing intentions (H1b). The quantitative results showed that no support was found for the main effect of this variable. The results of the interviews showed that the majority of the respondents indicated that self-approval was important for reporting questionable acts and attributed this need to their moral upbringing. A practitioner stated:

> **The starting point is your internal mechanisms and decisions are based on how I was brought up. That is the estimate of how I make my determination (Practitioner - BDWB03)**.

At the same time, the need for approval from others was required by these respondents. This is supported by one senior audit manager's statement:

> **Ok, I would say my superiors and family. I guess it is everybody to take into consideration. Barbados is small. Your name appears in the papers and everybody knows and secondly, because of the trust they have in me (Senior audit manager - BDWB08)**.

There was a noticeable difference in attitudes among less experienced junior members of staff, who reported that they needed approval from others to be guided in the right direction. This suggests that this group's apparent uncertainty and inexperience about the organizational procedures will result in the need for guidance, but most importantly to seek approval from others to remain in a favourable position. This sentiment was corroborated by a junior member of staff, who reported:

> **Myself. My peers. I guess my close, trustworthy peers because obviously they are working with me. To some extent being an auditor, observing the rules of the organization, and following my superiors. I would look at that for guidance to say, 'Yeah, it is really my duty to do this' (Junior member of staff - BDWB15).**

Overall, a significant portion of the audit managers, audit seniors, juniors and focus group members needed approval from key referent groups such as superiors, work colleagues, peers, and family rather than self approval.

The results from the quantitative phase support the responses from the interview phase, where there was an apparent conflict between the need for self approval and the need for approval from others. At times, the need for approval from others (e.g. superiors in the audit firm) seemed to take precedence over the need for self-approval. For example, the interview results revealed that the more powerful and experienced audit staff needed moral approval from themselves and others, while the junior staff needed the approval from others to make ethical and whistle-blowing decisions. This is consistent with the research of Ryan and Riordan (2000) and Jones and Ryan (1997), who focused on individuals' inability to be congruent, as well as Aristotle (trans. 1934), who asserted that people will seek the guidance of significant others in making ethical decisions.

Most respondents agreed that their internal decisions were influenced by significant others (May 1992). These findings were consistent with Jones and Ryan's (1997) argument that desired moral approbation (moral approval from oneself and others) influenced ethical decision-making. In addition, these findings lend some support for the impact of social influences on whistle-blowing intentions (Hooks et al., 1994). Table 38 summarises the responses from the various groups.

Table 38: Summary of responses on desired moral approbation

Level of respondents	Common themes
Regulators	Need approval from self - Moral upbringing

Practitioners	Need approval from self
	  Moral upbringing
	  One's moral compass
	  Concept of right and wrong
	Need approval from self and others – family, work colleagues

Partner	Need approval from self

Audit managers	Need approval from self
	  Moral upbringing
	  Moral compass
	  Strong religious core
	Need approval from others - partners, superiors and family

Audit seniors	Need approval from self Moral upbringing Need approval from others – family and superiors in the firm
Audit juniors	Need approval from self Moral upbringing Need approval from others (family, friends, church, peers, and superiors in the firm)
Focus groups	Need approval from others – family, work colleagues, superiors in the firm

7.4.3 Perceived behavioural control

In chapter 6, hypothesis 1c was found to be supported for the main effect of perceived behavioural control having a positive and significant relationship on auditors' whistle-blowing to internal and external channels. In the interview phase, the results indicated that the majority of respondents reported that they have some measure of control in reporting questionable acts. Some of the reasons offered for this apparent difficulty in whistle-blowing included the level of the observer and perpetrator within the firm (e.g., the difficulty of reporting a partner or superior), loyalty to colleagues, refusal to report

out of an abundance of caution, others' perceptions of reporting the act, negative consequences for the whistle-blower, feelings of discomfort experienced by reporting, the degree of anonymity and confidentiality and the close relationship between the perpetrator and the recipient of the report. A junior accountant commented:

> **It will be harder to report someone of higher authority than you because of fear of victimization. Obviously, if I see something, I would definitely go to who I think I could trust in the organization and who can deal with it (Junior accountant - BDWB14).**

Difficulty in reporting is perceived to be encountered, when the individual being reported is on the same or higher level and the process of transmitting the information becomes sensitive, as there is the need to approach the matter delicately without appearing to have malicious intent. The probability of being able to successfully perform such a task is analogous to Bandura's (1977) concept of self-efficacy. Hence, there may be the need for caution. A partner shared:

> **Out of an abundance of caution, you wouldn't want to report something, unless you are absolutely sure that the suspicion is correct (Partner - BDWB05).**

The senior audit director stated:

> **I think it is difficult, because the person might really have done something wrong. But you think of all the ramifications. You think of the consequences of their actions that they would now have to suffer, once you make the report, especially if it is someone that you are close to (Senior audit director - BDWB07).**

This impression can be aligned to Ajzen's (1991) theory of planned behaviour, which assesses the difficulty in carrying out certain behaviours. In short, a senior audit manager, with religious beliefs, summed up the general reluctance (or difficulty) in reporting by stating:

> **I don't want to 'rat out' on anybody. I mean, I am a nice person. If I tell them, they would try to deal with the situation (Senior audit manager - BDWB08).**

These findings suggest that when individuals contemplate reporting wrongdoing, a formal assessment of the effect of the personal cost of reporting is conducted before action is initiated. This seems to corroborate Latané and Darley's (1968) bystander effect theory which postulates that individuals must 1) be aware (cognition) of the wrongdoing, 2) make a decision to act, 3) decide if the bystander has personal responsibility to act, 4) choose the appropriate intervention technique and 5) perform the required action.[25] Therefore, in the process of contemplating whether to act or not, the whistle-blower takes into consideration the impact of reporting on the perpetrator's life, and the possible feelings of guilt.

Of paramount importance is the issue of confidentiality and anonymity, which must be guaranteed, due to fear of victimization. If it is perceived that the organizational culture does not support whistle-blowing, individuals would be less likely to whistle-blow. An audit manager believed that the ability to link the report to the whistle-blower and the lack of trust and confidence in the report recipient, are likely to make reporting a difficult task. The audit manager commented:

> **It depends on whom you are reporting to. Because you are reporting to people who are closely linked, you would think longer before you report it. Because you would think about whom you are reporting it to. Suppose you are working with the same person you want to report on, how would that work? (Audit manager - BDWB11).**

The majority of respondents reported that they did not have absolute control in reporting questionable acts. Respondents cited various reasons for this limitation, which included the influential position of the perpetrator, anonymity and confidentiality

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[25] Bystander effect theory arose as a result of the Kitty Genovese 1964 murder in New York City, where 38 bystanders stood by and watched the murder taking place without intervening, or even calling the police (Latané and Darley, 1968). Bystander intervention theory postulates that the greater the number of bystanders, the less likely that any bystander will engage in a response. The theory proposes that bystanders may justify non-intervention, if they perceive diffusion of responsibility. For example, within an audit firm, an individual auditor may not feel responsible for reporting wrongdoing. The justification for this inaction may arise due to the auditor's belief that other members in the firm may either be responsible for reporting or may have already reported.

of the reporting channel, and the observer's position in the hierarchical structure of the audit firm. The moderate level of control was evident, when the accounting regulator reported:

> **Not directly. When you are dealing with a professional, on a professional basis, you do not necessarily have that control. But because there is a certain amount of respect professionally, you are able to use moral suasion to effect change. You don't want it going further. Once in the public's eyes, it is bad for the profession (Accounting regulator - BDWB02).**

Similarly, one audit manager shared:

> **I have general control over the behaviour, but not absolute. There is the possibility that someone can ignore it or sweep it under the carpet (Audit manager - BDWB06).**

The general feeling of lack of absolute control filtered down the hierarchical structure to the junior members of staff whose perceived notion is that control over reporting is not within their mandate. One female junior accountant reported:

> **I can only take it to a certain level. But beyond that, I don't think I have any control. The individual that I speak to, of a higher authority, will have to go and deal with the situation (Female junior accountant - BDWB14).**

This was corroborated by a male junior staff accountant, who reported:

> **Only the initial report, but not over what happens after that. It is up to the managers after that (Male junior staff accountant (BDWB17)**.

This assessment was also formulated by the members of the focus groups, who reported that they do not have control over reporting wrongdoing, especially if the report is being made on the partner. Given the vested interest that partners have in clients, focus group members felt that it is the responsibility of the partner to ensure that the client acts responsibly, and the partner should lead by example by behaving ethically. There was agreement by some senior audit staff, who perceived that they had some control over reporting questionable acts.

This is supported by one audit senior who stated:

> **Yes, our open door policy and our bosses are very receptive to any concerns we have (Audit senior - BDWB11)**.

Another audit senior remarked:

> **Our partners, basically, lead by example. They do as they say and are exemplary in their care and concern that they extend to others. I don't see any obstacles (Audit senior - BDWB12).**

Overall, respondents felt that they did not have absolute control over reporting. It is possible that the culture of the audit firm could encourage whistle-blowing, increase the feelings of perceived behavioural control to report internally (Park and Blenkinsopp, 2009) and in the process increase positive feelings about reporting (self-efficacy). This is comparable to Broadhead-Fern and White (2006), who envisaged self-efficacy as a strong indicator of the intention to follow procedures. Table 39 summarises the responses for the groups.

Table 39: Summary of responses on perceived behavioural control

Level of respondents	Common themes
Regulators	Limited Control
Practitioners	Control
Partner	Control
Audit managers	Some control
Audit seniors	Some control
Audit juniors	No control
Focus groups	No control

7.4.4 Link between independence and the ability to report questionable acts

In chapter 6, hypothesis 1d was found to be supported for the main effects of independence commitment having a significant and positive relationship on auditors' whistle-blowing intentions internally, but not externally. In the interview phase, the majority of respondents conceded that there is a link between being independent and

being able to report questionable acts. Mitigating factors reported to illustrate the

linkages included the core values of audit firm and the profession (e.g. objectivity,

integrity, independence), and perceived relationships that exist (proximity). The audit

director reported:

> **The more independent you are, perhaps, it makes it a little easier as people look to you for your independent stance. It becomes a little more difficult, if you are close to the person and there is some kind of attachment (Audit director - BDWB07).**

While another senior manager elaborated:

> **Certainly, I think that, as an auditor, there are certain principles that you live by: objectivity, independence, integrity, and being independent almost being drilled into you, that this is how you need to be (Senior manager - BDWB08).**

The junior staff accountants (BDWB14, BDWB15 and BDWB17) respectively

reported:

> **I believe it is easier to rat on somebody you don't like.**
>
> **If it is just your friend, it is going to be hard.**
>
> **You are supposed to be objective and act with integrity. If you do not know the person, you are more inclined to be questioning.**

The respondents pointed out that the individual auditor needed to remain

independent (objective), although they are hired and paid by the audit firm. This belief

is based on the profession's requirements that auditors be independent at all times, even

if this is in conflict with any unethical acts occurring within the audit firm. The

majority of the respondents felt that independence is a state of mind that should not

only be confined to the final audit report, but to all aspects of the audit engagement,

which will include what happens in the audit firm.

A partner suggested that integrity played an integral role in reporting

questionable acts. Given the profession's requirement to be independent (Gendron et

al., 2006), interviewees felt that independence commitment influences whistle-blowing

intentions, with the likelihood that the individual would be able to withstand any pressure. DeAngelo (1981a) has argued that greater independence is likely to result in higher audit quality. However, an important finding was the revelation that although independence was a motivational factor for reporting within the audit firm, it did not have the same effect on reporting externally.

Thus, the results of the quantitative phase corroborated the findings from the interviews. These findings highlighted the importance of independence as a significant factor likely to influence the reporting of questionable acts internally, but not externally. The closeness of relationships may impact on the ability to report (Gendron et al., 2006). Although independence is not necessarily a criterion for whistle-blowing, respondents acknowledged that whistle-blowing can be enhanced by independence. Table 40 presents the summary responses from the various groups.

Table 40: Summary of responses on independence commitment

Level of respondents	Common responses
Regulators	Very important
Practitioners	Very important
Partner	Very important
Audit managers	Very important
Audit seniors	Very important
Audit juniors	Very important
Focus groups	Very important

7.4.5 Personal responsibility to report questionable acts

In chapter 6, hypothesis 1e was found to be supported for the main effects of personal responsibility having a significant and positive relationship on auditors' whistle-blowing intentions internally (p < .05), and marginally significant on external whistle-blowing intentions (p < .10). The findings in the interviews indicated that the

respondents agreed that there is a personal responsibility towards others (society, shareholders and clients) to report questionable acts, which is not limited to internal reporting. These feelings of personal responsibility were derived from a sense of moral obligation and the trust placed by society in auditors. One male audit senior reasoned:

> **If we agree that the auditor is the watchdog for the shareholders or other persons, who may be lacking in knowledge or not have access to knowledge, then he is responsible for reporting questionable acts. He is acting in the interest of the ignorant (Male audit senior - BDWB10).**

While a highly moral practitioner declared:

> **Yes, I have a responsibility to report. As an external auditor seeing things that are irregular in the audit firm and I do not bring it up, what am I doing? I'd be acting unprofessionally (Practitioner - BDWB04).**

The importance of maintaining public trust was further echoed by one senior manager, who stated:

> **We do, in terms of the public's perception and the trust that the public place in us. We do have a personal responsibility to do it (Senior manager - BDWB08).**

The need to uphold the integrity of the profession and audit firms seemed to propel the feelings of personal responsibility. For example, one audit senior stated:

> **Yes. Because, we are basically representatives of the accounting body, and, to me by default, that requires us to uphold the integrity of the profession. We need to be accountable for each other as well as ourselves (Audit senior - BDWB12).**

Overall, the findings of the interviews suggest that there is a certain level of trust placed in auditors by society, with the expectation that auditors will act ethically as they are basically representatives of society (Cowton, 2009). The feelings of personal responsibility to report wrongdoing in an audit firm may stem from the respondents' beliefs that users of financial statements could lose their investments as a result of a poor audit opinion. It is perceived that the auditor's responsibility is to report

wrongdoing committed by other audit staff as a means of protecting the public's interest (Tetlock, 1985; Curtis, 2006).

The results of the interviews also revealed that there is an obligation to maintain auditor-client confidentiality. For example, an experienced partner perceived that there is a duty to report internally (but not externally) any wrongdoing within the firm, since the act of reporting externally breaches auditor-client confidentiality. This respondent stated:

> **There is a responsibility to the client, a duty of confidentiality to the client that may be breached by reporting something outside of the client and similarly within the firm now (Partner - BDWB05).**

Perhaps, this mindset may be indicative of the respondent's role and vested interest in the client rather than society.

Overall, the findings from the quantitative phase indicate that there is an obligation to report internally, but not externally. The interviews support the findings from the quantitative phase. Specifically, these results support the influence of personal responsibility for reporting on whistle-blowing intentions, similar to prior research (Graham, 1986; Schultz et al., 1993; Kaplan and Whitecotton, 2001). Table 41 summarises the common themes.

Table 41: Summary of responses on personal responsibility to report

Level of respondents	Common themes
Regulators	Responsibility to report
Practitioners	Responsibility to report
Partner	Responsibility to report
Audit managers	Responsibility to report
Audit seniors	Responsibility to report
Audit juniors	Responsibility to report
Focus groups	Responsibility to report

7.4.6 Personal cost of reporting

In chapter 6, hypothesis 1f was found to be supported for the main effects of personal cost of reporting having a significant and negative relationship on auditors' internal whistle-blowing intentions, but not externally. In the interview phase, most respondents acknowledged that whistle-blowing would have negative consequences, which could be the determinant factor in the unwillingness to report wrongdoing. They all agreed that whistle-blowing could be detrimental to one's career and highlighted the areas of apprehension such as negative effect on the auditor's career, legal ramifications, fear of inaction by management, fear of discrimination or reprisals (alienation, ostracism, harassment, lack of trust, demotion, cut in pay, lack of promotional opportunities, lower job satisfaction, labelling, tarnished reputation), disruptive family life, lack of confidentiality and anonymity and strained relationships (Schultz et al., 1993; Ponemon, 1994; Curtis, 2006).

The results illustrated that fear of reprisals and the negative impact on one's career were common themes highlighted by the respondents. The legal regulator declared:

> **Death to your future in the business world! If you are known to be a whistle-blower, your colleagues are not going to be comfortable with you. So you are not likely to make it too far in the corporate environment (Legal regulator - BDWB01).**

While a male audit senior divulged:

> **Fear of reprisal. Demotion becomes part of the whole discrimination process. When you take an opportunity to get out of the organization, they may make life difficult for you to find another job elsewhere, by scandalizing your name (Male audit senior - BDWB10).**

These sentiments were corroborated by the managers and junior members of staff who also added their concerns about being labelled and the level of job satisfaction.

A female senior audit manager shared:

> **I think you will get some persons calling you a traitor and saying that you have no right. There is a code of solidarity in place and how dare you break that code. I don't think you could continue in Barbados, being small as it is. I don't think that you can continue working at that organization because you broke the code entirely (Female senior audit manager - BDWB08).**

There appears to be an invisible built-in code of solidarity that exists within audit firms. If this code of solidarity is broken, it may become detrimental to one's career. This may be so, given the ethical, legal and confidential requirements of the profession (Mitschow and Langford, 2000). In essence, this may signify that firms in their pursuit of profits are likely to ignore or bury the reports, since they want to appease clients (Hanlon, 1994). It may appear that profits take precedence over morals, and may be the reason why the whistle-blower is perceived in a negative light. In addition, the potential whistle-blower may weigh the benefits and consequences of reporting to the organization and the related effect on all aspects of one's life.

Fear of discrimination was corroborated by a sole practitioner, who stated:

> **Retaliation. You might be singled out. The boss might give you a hard time. You might have to leave the firm and expect some resentment (Sole practitioner - BDWB04).**

Some of the junior staff accountants (BDWB14 and BDWB17, respectively) shared similar sentiments, such as:

> **Losing your job, whether or not there is victimization, the consequences, like if you are going to cut my pay, not promote me when I am supposed to be promoted, if you're going to fire me, if you are going to pressure me and then put me on all the bad audits, bad review, stopping my goal (Junior staff accountant - BDWB14).**

> **Victimisation. May lose your job; less job satisfaction (doing the dirty box jobs); may be overlooked for promotions (Junior staff accountant - BDWB17).**

Respondents felt that the manner in which previous reports were handled and the extent to which the organization embraces whistle-blowing could influence reporting of wrongdoing. For example, a female audit senior reported:

> **Previous experiences showing that even if I reported, nothing was done, or know of other persons who have reported situations and nothing was done. I would find that very discouraging (Female audit senior - BDWB13).**

In addition, the issue of confidentiality and the nature of the relationship of the perpetrator with the person to whom the report is being made, may discourage whistle-blowing. The audit director stated:

> **If there is some way in which they could link the report to the person who whistle-blew. The more direct the link and if you felt that any information you give would not be that confidential as you would like, that certainly would be a source of discouragement (Audit director - BDWB07).**

Fear of reprisals may explain the preference for anonymous channels of reporting, thus emphasizing the importance of self-preservation. It would appear that the sample felt that if no measures are implemented to protect the identity of the perpetrator, then the likelihood of reporting wrongdoing will decrease. Junior employees were more likely to refrain from reporting, due to fear of reprisals for having to report a colleague, and in particular, a superior.

Overall, these findings may suggest that audit staff, regardless of level, may be less willing to report wrongdoing, due to the negative psychological, social and emotional impact on their well-being. The stress of living in fear and social isolation is a significant deterrent to reporting. It appears that peace of mind was paramount for these respondents, as they contemplated how their reporting behaviours could negatively influence their careers within the profession. While the fear of reprisals or discrimination was consistent across the various levels of respondents, it appeared to be heightened among the junior members of staff. This may be due to the fact that these junior members are seeking future advancement or promotional opportunities within

the audit firm. This finding is similar to Near and Miceli's (1985) argument that more powerful observers (i.e., persons higher up in the hierarchy) are more likely to whistle-blow. Thus, the qualitative results support the quantitative findings. Specifically, support was found for the negative relationship between perceived personal cost of reporting and whistle-blowing intentions (Arnold and Ponemon, 1991; Schultz et al., 1993; Hooks et al., 1994; Kaplan, 1995; Kaplan and Whitecotton, 2001).

7.5 The moderating role of team and contextual factors on auditors' whistle-blowing intentions

This section looks at research question 4 (RQ4), which explores the moderating role of team and contextual factors (perceived organizational support, team norms, group cohesion and perceived moral intensity) on external auditors' whistle-blowing intentions. In answering RQ4, the qualitative results are linked to the hypotheses, H2, H3, H4 and H5 in the quantitative findings.

7.5.1 Perceived organizational support

In chapter 6, hypothesis 2 (H2) was found to be partially supported for the moderating effects of perceived organizational support on the relationship of the independent variables (attitudes, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) and internal whistle-blowing. Specifically, when perceived organizational support was high, the relationships of the independent variables (attitudes, perceived behavioural control, independence commitment and personal responsibility for reporting) and internal whistle-blowing intentions were stronger and positive. However, when perceived organizational support was low, the relationship between personal cost of reporting and

internal whistle-blowing intentions was stronger and negative. Support was also found for the moderating effect of perceived organizational support on the relationship between the independent variables (attitudes, perceived behavioural control and personal cost of reporting) and external whistle-blowing. When perceived organizational support was low, the relationships of the independent variables (attitudes and perceived behavioural control) and external whistle-blowing were stronger and positive. However, when perceived organizational support was high, the relationship between personal cost of reporting and external whistle-blowing intentions were stronger and positive.

In the interview phase, respondents felt that the level of perceived organizational support may influence the intentions to whistle-blow. The majority of respondents felt that the culture of the audit firm and clearly defined reporting policies could encourage whistle-blowing. This is supported by the legal regulator, who shared:

> **It matters, because if there is no support, the person is discouraged from coming forward, when they discover anything else. And other people, who are aware of that case, will also not come forward to say anything. However, where the support has to come from the people, who are not doing anything, it is not likely that they'll get that support (Legal regulator - BDWB01).**

These sentiments were corroborated by the partner, who reported:

> **I know enough about human nature to know that people tend to keep quiet (Partner - BDWB05)**.

Respondents, who perceived high level of organizational support, attributed it to the audit firm's culture (e.g. open-door policy) which encourages reporting. This is evident in the statement of the senior audit director, who reported:

> **I believe so. I think we encourage a lot of consultation and discussion (Senior audit director - BDWB07).**

A male audit manager shared:

> **I think they would support me. They are looking at the bigger picture, about what can happen to the firm. The firm has a vested interest to ensure that all acts, that can have a detrimental effect, are reported (Male audit manager - BDWB09).**

An audit senior's statement reinforced this by saying:

> **Yes, I think they would support me. Risk management, partner, everything. I would be guided on what channel to use. We don't sweep things under the rug. We're not supposed to (Audit senior - BDWB12).**

Perceived organizational support may reduce high personal cost of reporting, which is a deterrent to whistle-blowing, and may grant the individual a sense of greater perceived behavioural control and higher personal responsibility to report. This is consistent with prior research (Hooks et al., 1994; Kaplan and Whitecotton, 2001), which argued that there is a strong relationship between the level of organizational support and the acceptability of whistle-blowing. The junior staff and the focus group members believed that support would not be forthcoming, if one had to report wrongdoing committed by higher level staff such as a partner.

Members of the focus groups proposed sending in their letters of resignation, because they felt that the reporting of any wrongdoing committed by top management may not be welcomed. They believe that this may be the best option available to them. This course of action directly correlates with Mesmer-Magnus and Viswesvaran's (2005) suggestion that potential whistle-blowers could leave the organization, blow the whistle or remain silent.

Respondents reported that there were mechanisms to support whistle-blowing within the audit firms. The sample identified mechanisms to promote whistle-blowing which included the use of anonymous hotline and email services, suggestion boxes, having an independent group or person to handle reports (e.g. ethics or risk partners and managers) open-door policy, training and education programmes, counselling for

staff, and the ethical codes of conduct. These mechanisms are analogous to normative isomorphism of institutional theory (DiMaggio and Powell, 1983), whereby the organization may set the appropriate structures in place for regulating the acceptable behaviour.

Audit staff cited that the culture of the organization and the availability of the hotline services were important mechanisms used to support whistle-blowing in their audit firms. The senior audit director reported:

> **A culture of discussion …. We talk about how the junior auditors should escalate things to the supervisors, managers, and so forth (Senior audit director (BDWB07)**.

This suggests that an audit firm's culture, which is supportive of whistle-blowing, could be instrumental in encouraging whistle-blowing by reducing personal costs of reporting, and increasing personal responsibility and attitudes to reporting. Table 42 presents a more detailed picture of the mechanisms in place in the sample of audit firms.

Table 42: Mechanisms of perceived organizational support

Mechanisms in place within the audit firms
• Annual training in ethics/ education programme
• Suggestion box
• Culture of discussion
• Anonymous emailing
• Reporting to risk manager, ethics and independence partner
• Ethics champions
• Codes of conduct
• Provision of ethics manual
• Open door policy
• Ethics partner
• Anonymous hotline
• Face-to-face meeting with partners and managers
• Counselling for staff

In contrast, the regulators did not believe that mechanisms have been effectively implemented or even enforced to adequately address the issues of whistle-blowing. This is supported by the legal regulator, who stated:

I am not sure that there are lots of mechanisms. Simply because I do not think that most people want whistle-blowing, even though they say so. Accountants believe their responsibility is to the person who pays them, and therefore they report to that person and nobody else. There is no protection, except the goodwill of the employer (Legal regulator - BDWB01).

In spite of the differences in opinions of the regulators and the auditors, the findings in the interview phase were consistent with the results for hypothesis 2 (H2) of the quantitative phase. Both phases of this study revealed that perceived organizational support was the variable that influenced the preferred channel of reporting (internal or external), and significantly influenced the individual's attitudes, perceived behavioural control and personal cost with respect to internal and external whistle-blowing. This supports Eisenberger et al.'s (1986) theory of perceived organizational support, which proposes that individuals are more likely to act favourably to the organization, where they perceived high levels of support, based on the norms of reciprocity and social exchange theory. In addition, Brennan and Kelly (2007) found that the presence of formal reporting structures in audit firms were more likely to influence reporting of wrongdoing by audit staff, without fear of jeopardising their careers.

7.5.2 The influence of cohesiveness of team members on whistle-blowing

In chapter 6, hypothesis 3 (H3) was found to be partially supported for the moderating effects of group cohesion on the relationship of the independent variables (attitudes, perceived behavioural control, independence commitment and personal responsibility for reporting) and internal whistle-blowing. Support was found for the relationship

between the independent variables (independence commitment and personal cost of reporting) and external whistle-blowing. It was found that when group cohesiveness was low, there were positive and significant relationships between the four independent variables and internal whistle-blowing. This indicates that when group cohesiveness is low, audit staff members were more likely to step out of the group to whistle-blow. When group cohesion was low, it was also found that there was a positive significant relationship between independence commitment and external whistle-blowing. However, when group cohesion was high, there was a positive and significant relationship between personal cost of reporting and external whistle-blowing.

In the interview stage, it was found that the intention to report was likely to be influenced by factors such as group members' personalities, relationships with peers, the degree of cohesiveness and group size. To be considered part of an in-group, human beings may compromise their ethical principles to fit in. For example, one audit senior stated:

> **Depends on how strong you are and how dependent you are on that team for identity (Audit senior - BDWB10).**

The partner (BDWB05) added:

> **If the culture of the group is that they respect high ethics, then that makes whistle-blowing easier. But if the culture of the group tends to turn a blind eye on wrongdoing, then it is more difficult to whistle-blow in that culture (Partner - BDWB05).**

A junior female staff accountant corroborated this by reporting:

> **It depends on the make-up of the group, because if you have people in your organization with stronger personalities than yourself, that person will be likely to overpower you. If the person is at a higher level, they may even threaten you with your job (Junior female staff accountant - BDWB14)**.

This suggests that fear of reprisals and group pressure may influence reporting intentions. Hence, respondents requested anonymity and confidentiality, when reporting wrongdoing. This was evident in the comment of the staff assistant, who shared:

> **It is likely that close friendships will be formed within the groups. Therefore, that may make it difficult for you to report a matter because you may feel that you are being a traitor and that the information you provide would be leaked (Staff assistant - BDWB18).**

This may be indicative of the critical importance of confidentiality, which if not adhered to, may result in labelling and negatively impacting the individual's career.

The findings further showed that when an individual's identity becomes fused with the group, independence may be compromised. An audit manager divulged:

> **If your friends are on the team.... Because everybody on the team would not be as strong as others, that could be an influence on whether to speak out or not. You do not want to affect the relationship (Audit manager - BDWB06).**

This supports Abdolmohammadi et al.'s (1997) argument that the more dominant and capable members of a group are likely to influence the group's ethical decision-making.

The majority of respondents perceived that there was a low level of cohesiveness in audit teams. For example, one junior auditor argued that she would not report on her friend in the group, but would report on others. This was further evident by different responses in the focus groups such as **"acting independently within the group"**, **"individuals will be looking to me (the leader) to resolve it"**, **"persons with stronger personalities than yourself will overpower you… even threaten you"** and **"I was never influenced by groups or persons on ethical issues."** A manager clearly summed this low level of cohesiveness up by stating that **"it is just that these persons were put together to work on this particular job and are not very close."** This may

point to the fact that audit teams are always changing as they work on multiple engagements.[26]

There also seems to be evidence of 'forced solidarity' within the groups. Alluding to the impact of peer relationship or cohesiveness of the group, another audit manager shared:

> **This is your team, your management group. It would be hard. It is almost like an unsaid code that you need to pledge some solidarity (Audit manager - BDWB08).**

A male audit manager reported:

> **You are going to be less willing to report a questionable act or somebody that you are close to, based on the friendship that would have been formed. You are less likely to report that person than some person you have a passing relationship with. Unfortunately, we are human, so you will treat each case differently. The level of cohesiveness of the teams tells us that we do things this way. It would influence whether you report it or not (Male audit manager - BDWB09).**

The need for team input in decision-making was further acknowledged by a junior male member of staff, who stated:

> **To a certain extent, it boils down to the individual. The team will evaluate the situation and determine if it is worthy of reporting. We would eliminate all other possibilities and get group consensus on what to do (Junior male member of staff - BDWB09).**

The findings suggest that there is a process of negotiation within the group setting (Janis, 1972). It appears that whistle-blowing, without the full support of the team, is given careful consideration in the assessment phase, similar to arguments made by Finn (1995). For example, the severity of the act may be heavily scrutinized and the whistle-blower's life circumstances are reviewed.

Finally, it was important to note that two female members emphasized the importance of individuality and indicated that their ethical decision-making was not

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[26] Three informal follow-up interviews (staff accountant, audit senior, and audit manager who were not in the original sample of interviewees) were done to confirm the low cohesiveness levels and high team norms obtained in the quantitative phase of the research. These informal interviews corroborated the results from both phases of this study.

easily swayed by the audit team. The decision to take a stance that goes against the values of the group may be an indication of high moral principles, which are not likely to be compromised by the group. Despite these views, the findings of this research show that groups can influence reporting intentions. Thus, these results further support hypothesis 3 (H3), and demonstrate that low cohesiveness in audit teams is more likely to influence whistle-blowing behaviour.

7.5.2.1 Importance of the influence of team norms on whistle-blowing

In chapter 6, hypothesis 4 (H4) was found to be supported for the moderating effects of team norms on the relationship of the independent variables (attitudes, desired moral approbation, independence commitment and personal responsibility for reporting) and internal whistle-blowing. It was found that when team norms were high, there were positive and significant relationships between these four independent variables and internal whistle-blowing. However, support was only found for the significant positive relationships between two independent variables (attitudes and independence commitment) and external whistle-blowing.

In the interview phase, the majority of respondents conceded that team norms were likely to influence whistle-blowing. An experienced practitioner remarked:

> **They influence you in a big way. You have to work with these people, and sometimes, their modus operandi can become yours, 'groupmind'. Their behaviour can influence the way you behave, especially when in that group. To that extent, it is very easy to go down the road with the guys. Outside of that group, you might not do the things that you would normally do in that group. Based on group norms, the group can definitely impact upon the tendency to whistle-blow (Practitioner - BDWB03).**

This may highlight the way in which an individual's values can become fused with the norms of the group (Janis, 1972). However, it was noticeable that the focus groups (i.e. in a group setting) tended to report that they would behave ethically, and would try to

steer any deviants on the right course of action. This is also evident in the statement of

another practitioner, who reported:

> **There is some measure of influence. If you have a team, and you can take the advice of the members, then the team operates well as a group (Practitioner - BDWB04)**.

This finding supports Nichols and Day's (1982) argument that groups normally reach

more ethical decisions than individuals. It is expected that the norms of the group

would influence or regulate behaviour of the individuals within the group.

It was further found that the group may force individual members to conform to

the group's norms. Junior accountants (BDWB14, BDWB15 and BDWB18) shared:

> **Yes. Then you'll be the lone man. You'll be the cast away (Junior accountant - BDWB14)**.

> **You, in turn, can get a bad review or you can get stain. People will shun you if you are a teller (Junior accountant - BDWB15)**

> **Yes, if you decide to report. You would have to come to a personal decision of whether to go ahead and report (Junior accountant - BDWB18)**

The level of the members in the team was also cited as an influential factor in

the whistle-blowing intentions of individual group members. A female audit senior

reported:

> **It all depends on the levels of the persons in the team as well. It is easier to discuss with some person on your level or above you. Some people are easily persuaded to back down and there are other persons who want you to believe this is the right thing to do. They will at least go, and it is to some point, higher (Female audit senior - BDWB13)**

A male junior accountant addressed this point by arguing:

> **We look to senior people in the group to provide guidance. You still have to have enough sense to know what is right from wrong (Male junior accountant - BDWB17)**.

Based on the above findings, it appears that peer pressure from superiors in the group

can guide or shape the team's norms on what constitutes acceptable behaviour. Thus,

this finding supports Hooks et al.'s (1994) argument that group norms may colour one's perception of the seriousness of the wrongdoing.

The element of moral norms was cited as one of the key motivators for ethical behaviour within groups. Most respondents felt that the audit teams' norms were shaped by moral principles, professional codes, and the firm's core values. For example, several respondents highlighted that these core values (e.g. integrity and objectivity) are displayed in prominent places throughout the offices, thus encouraging adherence to ethical norms. This lends support to the findings of the quantitative phase (chapter 6), where high team norms moderated the relationship between the majority of the independent variables and internal whistle-blowing. This finding is consistent with Narayanan et al.'s (2006) argument, which suggested that individuals will value their membership in a group and wish to stay in the group. De Jong et al. (2005) also argued that the norms of the group determine the appropriate behaviour. Table 43 summarised the common themes arising out of the interviews for group cohesion and team norms.

Table 43: Summary of responses on team norms and group cohesiveness

Level of respondents	Common themes	Level of cohesiveness	Level of team norms
Regulators	Need for affiliation with group Relationship with peers in the team	Not applicable	Not applicable
Practitioners	Modus operandi of team becomes fused (lose individual identity) Groupthink occurs	Low	High
Partner	Ethical norms and group culture	High	High
Audit managers	Independence of the individual Relationship with team members	Moderate	High
Audit seniors	Depends on the culture of the group (ethical or unethical) Relationship with peers Personality/individuality Influence of levels of persons in the team	Mixed (high and low)	High
Audit juniors	Need for affiliation with group. Consequences of dissenting Personality of individual members Levels of persons in the team	Low	High
Focus groups	Influence of group members on the final decision Groupthink, discussion	Low	High

7.5.3 The influence of perceived moral intensity on whistle-blowing

In chapter 6, hypothesis 5 (H5) was found to be partially supported for the moderating effects of moral intensity on the relationship of the independent variables (attitudes, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) and internal whistle-blowing. Specifically, it was found that when moral intensity was high, there were significant positive relationships between the independent variables (attitudes, perceived behavioural control, independence commitment and personal responsibility for reporting) and internal whistle-blowing. When moral intensity was low, there was a significant

negative relationship between personal cost of reporting and internal whistle-blowing. Support was only found for the relationship between desired moral approbation and external whistle-blowing. When moral intensity was low, there was a significant positive relationship between desired moral approbation and external whistle-blowing.

In the interview phase, the respondents generally felt that moral intensity may influence the likelihood of reporting wrongdoing. Respondents conceptualised 'moral intensity', using themes such as the act itself, the consequences of the act, materiality, magnitude of consequences, seriousness, effect of the act on the financial statements, risk of discovery and discipline to the auditor, and the pervasiveness of the act. These themes are similar to dimensions of Jones' (1991) moral intensity construct. For example, several respondents emphasized the importance of magnitude of consequences (similar to materiality), which is likely to influence whistle-blowing intentions. For example, a practitioner stated:

> **It influences your tendency, based on your circumstances. The greater the magnitude of the act, the more you are likely to report the act. Size is important (Practitioner - BDWB03).**

Another practitioner shared:

> **It does not make sense to trigger an event that could cost any person to be out of pocket for an insignificant act. It is the materiality of the act (Practitioner - BDWB04).**

The junior audit staff also felt that materiality was influential in whistle-blowing. This may be due to audit methodologies which highlight materiality as part of the audit process. For example, a junior reported:

> **It would have to be the level of materiality. I would seriously have to think hard about going outside of the firm (Junior - BDWB14).**

While another junior stated:

> **If it affects more individuals, myself included, it will determine whether or not I report it. However, I am not going externally (Junior - BDWB15).**

It was noticeable that individuals were not likely to report externally, no mater the level of moral intensity.

In contrast, the moral side of the act (equivalent to seriousness) was important for two managers (BDWB06; BDWB07). One audit manager reported:

> **You still have to look at the act. If it is something unethical, no matter the magnitude of it, it is the act that matters. It is not the dollar value, it is the effect (Audit manager - BDWB06).**

Similarly, this sentiment was corroborated by the audit director, who also reported:

> **If something goes against the grain, whether immaterial or not, there is a potential that it could be repeated at a material level. The materiality of a wrongdoing might not suggest that we close our eyes to it. It is the act, as well as the materiality (Audit director - BDWB07).**

Overall, these findings suggest that the likelihood of reporting wrongdoing will increase in situations, where the act is perceived as being material, serious, morally wrong, and has the potential to harm others. These factors are similar to Jones' (1991) construct of moral intensity, which included magnitude of consequences, probability of effect, concentration of effect and proximity. However, while these perceptions may motivate internal reporting, an apparent conflict arises for the individual, when faced with the option to report externally. Thus, these results partially confirm hypothesis 5 (H5), and demonstrate that reporting unethical acts will increase when moral intensity is high only for internal whistle-blowing, but will be quite marginal for external whistle-blowing. Minor acts of wrongdoing are more likely to be ignored, while major acts may be reported internally, but not externally. Table 44 summarises the responses of the various groups.

Table 44: Summary of responses on perceived moral intensity

Level of respondents	Common themes
Regulators	Level of materiality
	Magnitude of the act
Practitioners	Magnitude of the act
	Level of materiality
	Size of the act
Partner	Level of seriousness of the act
Audit managers	The act itself
	Materiality
Audit seniors	Materiality
	Pervasiveness of the act
Audit juniors	Level of materiality
Focus groups	Materiality
	Seriousness
	Harms the public

7.6 Consequences (effects) of whistle-blowing on the audit firm, profession and society

7.6.1 Positive consequences (effects) of whistle-blowing

Research question 5 (RQ5) sought to determine the perceived consequences of whistle-blowing among external auditors.[27] There was unanimous agreement among the respondents that whistle-blowing can have positive consequences for the whistle-blower, the audit firm, profession and society. The common themes that emerged to support the notion of positive consequences to the individual whistle-blower included having a clear conscience, maintaining independence, positive self-esteem, being perceived as ethical, and bringing to light unethical practices that would have remained virtually unknown and unresolved. Having a clear conscience took precedence over all

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[27] This research question deals with the consequences (effects) on the individual, the firm, profession and society, **after** the whistle-blowing behaviour. The argument here is that section 7.4.6 personal cost of reporting, as an antecedent in the model, looks at one's considerations prior to whistle-blowing; whereas, the effects in this section refer to what could happen after whistle-blowing.

the other factors and was consistent across all levels of respondents. For example, the

audit director stated:

> **You can clear your conscience because you have spoken up in the face of something that you see which could have been very harmful to a lot of parties. You might be able to save a company, help keep it afloat, or the employees who might also be about to lose their jobs (Audit director - BDWB07).**

While the male audit manager simply stated:

> **You are ridding the firm of bad apples, and preventing eventual disaster (Male audit manager - BDWB09)**

It was also perceived that whistle-blowing could enhance the credibility and

image of the audit firm. The accounting regulator reported:

> **Once they establish independence from the client, they will be seen as a more ethical firm. If it ever gets to the public domain that these are the actions that they have taken or these are the values that they have instilled within themselves, within that firm, and that's the way they carry on business, I guess it would be a positive for them (Accounting regulator - BDWB02)**.

The majority of respondents perceived whistle-blowing as having a positive

impact on the profession. Common themes emerged such as increased self-regulation

and vigilance, maintenance of ethical principles or standards, credibility,

implementation of control mechanisms to deter wrongdoing, preservation of the

profession, prevention of outside intrusion, greater trust and increased responsibility to

others.   One practitioner added:

> **It upholds the standards and preserves the integrity of the organization. Once you are able to take out the bad elements, persons who are fraudulent, greedy, and violating laws, in the long run it will be better for the profession and help the firm get back on its feet (Practitioner - BDWB04).**

An audit senior, who proposed that whistle-blowing may have positive consequences for society, reported:

> **Society suffers from the lack of whistle-blowing because investors make up part of society as well. As long as whistle-blowing is not being abused, it has a positive consequence. The ramification of this negligence is the implementation of regulations that must be adhered to by everyone (An audit senior - BDWB13).**

Overall, respondents believed that whistle-blowing can have positive consequences for the individual whistle-blower, the audit firm, profession and society, by making the profession more credible, trustworthy and accountable (Tetlock, 1985). This may suggest that whistle-blowing is essential to the image maintenance of the profession and can increase public trust (Cowton, 2009). As a result, failure to report wrongdoing may result in more harm than good.

7.6.2 Negative consequences (effects) of whistle-blowing

All respondents conceded that whistle-blowing can result in negative consequences for the individuals, audit firms, profession and society. The perceived negative consequences included alienation, reprisals, labelling, tarnished reputation, loss of employment and lack of trust. The firm's reputation was a major concern for all respondents. One practitioner shared:

> **Loss of reputation which is fundamental to the organization can result in reduced audit work (Practitioner - BDWB03).**

This sentiment was elaborated by a female audit senior, who reported:

> **If you whistle-blow in an audit firm, of course, it would cause clients to seek auditors elsewhere. Because if you think that an audit firm is not doing something that is reputable, you would not want them. It would make you question the head of the firm, question previous jobs they worked on, current jobs and it will affect any prospective jobs (A female audit senior - BDWB11).**

One member of a focus group felt that whistle-blowing externally can have a negative impact on the firm by tarnishing its reputation. It was felt that one should handle the issue of reporting with care and serious consideration. This member's concern was shared by the group, and further corroborated by the practitioners and junior members. For example, one practitioner highlighted:

> **Let us say that whistle-blowing has caused the organization to fail. All the suppliers and clients will also suffer, but you have to weigh that up against the costs of whistle-blowing. The entire profession is brought sharply under the microscope. The general public's perception to the profession can be tainted and the time to restore that confidence to the profession can take a while (Practitioner - BDWB03).**

Overall, respondents reported that there are negative consequences of whistle-blowing to the profession. The findings indicate that although there are benefits associated with whistle-blowing, it is recognized that costs to the profession are also derived from whistle-blowing, which may far exceed the benefits. For example, the tarnished reputation of the profession may increase the cost of regulation, dampen the desire of future entrants into the profession, increase criticism and foster lack of trust (Cowton, 2009). The entire profession has been heavily scrutinized by the public since Enron's debacle, and thus there is sufficient justification for having whistle-blowing as an internal control mechanism in audit firms (Hooks et al., 1994). Table 45 summarises the perceived consequences of whistle-blowing.

Table 45: Summary of perceived consequences of whistle-blowing

To whom	Positive consequences	Negative consequences
To the Individual	Clear conscience Positive self-esteem Being perceived as moral or ethical Maintaining independence Bringing to light unethical practices Integrity Increased trustworthiness	Financial (loss of employment security) Negative impact of future career as an auditor Alienation/ostracism Labelling Tarnished reputation Fear of reprisals Lack of trust Loss of job satisfaction Harassment Lack of promotional opportunities and discrimination
To the Audit Firm	Credibility Self-regulation Maintenance of ethical standards Increased trust Prevention of political intrusion and legal action Preservation of firm's reputation Increased responsibility to others	Firm's reputation may be tarnished Lack of independence and trust Loss of confidence in the firm's mandate Ostracism
To the Profession	Increased self-regulation and vigilance Maintenance of ethical principles or standards Credibility Implementation of control mechanisms to deter wrongdoing Prevention of outside intrusion	Tarnished reputation Labelling Loss of respect Loss of employment and revenues Firm splitting Issues of confidentiality
To the Society	Upholding the core values of the organization Increased public trust	Loss of employment Loss of clients Negative image of the organization

7.7 Recommendations for increasing whistle-blowing intentions among auditors

Research question 6 (RQ6) sought to obtain recommendations for increasing whistle-blowing among external auditors. The interviewees recommended the implementation

of penalties for unethical behaviour, formalising and documenting the policies and procedures for whistle-blowing in the firms, enacting legislation to protect whistle-blowers, providing more ethics training, facilitating necessary counselling, and offering financial rewards for whistle-blowing (Ponemon, 1994). They further suggested the updating of the code of ethics, emphasizing the importance of the codes, setting up of independent committees or person to evaluate whistle-blowing reports, displaying visual reminders in strategic locations on how to make reports, promoting use of the hotline, the establishment of confidentiality codes to help maintain anonymity and further promotion of the open-door policy. For example, a female audit senior stressed the importance of having an independent committee oversee the evaluation of the report. She reported:

> **Because the whistle-blower is going to be seen as the one who is wrong, you can have an independent committee set up so that in case you whistle-blow, your case can be heard. You show your evidence, they show theirs. We need something more transparent in place that could probably assist the process (Female audit senior - BDWB11).**

However, both regulators held differing opinions on recommendations proposed by audit staff. The accounting regulator proposed:

> **It comes back to the organization setting up documented policies and procedures. Procedures that are actually there to protect the employee, who has reported any whistle-blowing, which should be backed up by some legislation that would protect the job or financial security of those persons (Accounting regulator - BDWB02).**

In contrast, the legal regulator stated:

> **I don't think they are going to see whistle-blowing coming out of the accounting fraternity, unless there is a penalty for not doing it…bearing in mind that business people are in business to make money and compliance with ethical standards is not going to be a money-making exercise. Anything that is not making money, people are willing to overlook. I think I know them so well that I am not sure that anything will make a difference other than maybe having some penalty. Other than that they are not going to. Once they stand to lose business by being known as a whistle-blower, they are not going to and that's one of the things they look at as a significant deterrent. I don't think they will report even if the law says if you don't, you will go to prison. They would risk it because anything that gets in the way of making money they will ignore (Legal regulator - BDWB01)**.

This may suggest that audit firms may be more interested in profit making and as a result, the partners (owners) may choose to overlook ethical considerations that add no value or profit to their cause. This supports the literature which has shown that auditors tended to be reluctant to whistle-blow (Kaplan, 1995). Table 46 presents the recommendations made by the respondents for increasing whistle-blowing among external auditors.

Table 46: Summary of recommendations for increasing whistle-blowing

- Institute penalties for not reporting wrongdoing.
- Formalise and document policies and procedures for reporting.
- Enactment of legislative protection for whistle-blowers.
- Educate and provide more training on ethics and whistle-blowing.
- Provide counselling.
- Provide financial rewards.
- Review and periodically update the code of ethics.
- Set up independent committee to evaluate reports.
- Display visual reminders of how to make reports.
- Promote the use of anonymous channels such as the hotline.
- Ensure confidentiality and anonymity.
- Promote open-door policies.
- Encourage independence.
- Emphasise the importance of adhering to the code of ethics.

7.8 Conclusion

This chapter looked at the factors influencing whistle-blowing intentions among auditors in Barbados and used 18 auditors and 2 focus groups to accomplish this goal. The results from the quantitative phase in Chapter 6 were integrated and discussed with qualitative results in this chapter. In the second phase of this study, auditors' perceived whistle-blowing as the internal and external reporting of unethical or illegal acts that occur within audit firms, and therefore, regarded whistle-blowing as an important control mechanism. This phase found that individual factors (attitudes, perceived behavioural control, independence commitment, personal responsibility to report and personal cost of reporting) were extremely influential on auditors' whistle-blowing intentions. A surprising finding was the mixed results for the influence of desired moral approbation. Although respondents indicated that self-approval was important and their decisions rest on their moral upbringing, this study showed that the majority still relied on the approval of other referents (e.g. superiors or partners in the firm), thus resulting in a potential conflict. Being independent was found to be imperative for auditors as it helped to diminish conflicts of interest and enhanced the amount of control that auditors possessed in reporting questionable acts. In this way, auditors will be perceived as upholding the core values of the audit firms as well as demonstrating their perceived responsibility to society.

In addition to the individual factors, constructs such as perceived organizational support and moral intensity were found to be instrumental in increasing the likelihood that auditors would engage in reporting wrongdoing. It was also found that group factors significantly influenced whistle-blowing intentions. For example, high team norms (inclusive of ethical norms) and low cohesiveness of audit teams influenced the auditors' intentions to report internally, but with limited impact on reporting externally.

Independence and need for affiliation by groups were found to be influential on the individual's ability to whistle-blow.

Overall, this study found that the recommendations can be considered as being instrumental in encouraging whistle-blowing. The findings indicate that despite the fact that there is awareness of the importance of whistle-blowing, audit members are apt to be reluctant to take the initial step to report, due to fear of reprisals. Most respondents felt that the personal costs of whistle-blowing are high. The findings show that whistle-blowing is likely to occur if audit firms provide adequate reporting mechanisms and demonstrate that they welcome whistle-blowing. Table 47 summarises the factors likely to encourage and discourage whistle-blowing.

Table 47: Respondents' perceptions of factors encouraging and discouraging whistle-blowing

Respondents	Encouraging factors	Discouraging factors

Regulators	Personal Factors
	  -Honesty
	  -Truthfulness
		Negative effect on one's career
		Risk to financial security
		Legal ramifications
		Fear of inaction and discrimination
		Unethical culture of organization

Practitioners	Magnitude/seriousness of the act	Negative impact on business (ruined reputation) Discrimination (i.e., retaliation, being singled out)
Partner	Personal integrity Ethical culture of the organization Anonymity of the person reporting	Unethical culture of the organization Discrimination
Audit managers	Morals (concept of right and wrong) Impact/consequences of reporting or not reporting on the organization Self-preservation Severity of the act Poor relationship with the perpetrator	Negative impact of reporting on the perpetrator and family Lack of confidentiality (being able to identify the whistle-blower) Ostracism Good relationship with the perpetrator
Audit seniors	The seriousness of the act Financial rewards for the whistle-blower Individual morals Self-preservation Integrity Firm's reputation Core values Knowledge that remedial action will be taken Level of organizational support	Financial security (loss of job) Heavy personal cost and peace of mind Nature of the relationship to the perpetrator or the person to whom the report is made Level of materiality Culture of organization (failure to take action) Fear of victimization (being singled out)
Audit juniors	Culture of the organization Relationship to perpetrator Financial reward for whistle-blower Level of perpetrator in the firm (will not report senior level staff) Personal values Level of organizational support	Fear of reprisals (loss of employment Victimization: (pay cut, bad reviews, lack of promotional opportunities, bad reviews, placed on bad audits) Good relationship with perpetrator Loss of confidentiality Ostracism
Focus groups	Personal responsibility to report Level of organizational support	Negative effect on the team Ostracism

CHAPTER 8: CONCLUSION

8.0 Introduction

This thesis examined the whistle-blowing intentions among external auditors in Barbados. Specifically, this thesis sought to determine the factors (individual, contextual and organizational) that were hypothesised to influence whistle-blowing intentions among external auditors. The thesis further explored the meaning of whistle-blowing, the willingness to whistle-blow and the preferred reporting channels. Finally, the perceived consequences of whistle-blowing on the firm, profession and society were investigated, with recommendations offered for encouraging whistle-blowing in the audit profession.

This chapter is organized as follows. The first section summarizes the theory and presents the hypotheses and research questions, as well as the research approach taken in this study. The second section presents a summary of the quantitative and qualitative (interview) findings. The third section addresses the theoretical and practical implications and contributions of the study. Section four focuses on the limitations of the study, while the final section offers suggestions for future research.

8.1 Theory and hypotheses development

Chapter 2 highlighted the important features of the audit profession. These features include auditor independence and ethical decision-making. Chapter 3 reviewed prior research on whistle-blowing in organizations and the relevance to the audit profession. Chapter 4 proposed a conceptual model to examine whistle-blowing intentions among external auditors by measuring the influence of potential moderators (perceived organizational support, team norms, group cohesion and moral intensity) on individual factors (i.e., attitudes, desired moral approbation, perceived behavioural control,

independence commitment, personal responsibility and personal costs of reporting) as depicted in Figure 38. This model was derived from the literature, which included behavioural psychology, auditing, ethics, management and sociology. It draws upon the work of Ajzen's (1991) Theory of Planned Behaviour, Graham's (1986) Model of Principled Dissent, and desired moral approbation (Jones and Ryan, 1997) and independence commitment (Gendron et al., 2006) as individual–level antecedents. The moderators were perceived organizational support (Eisenberger et al., 1986), perceived moral intensity (Jones, 1991), group cohesion (Price and Muller, 1986) and team norms (De Jong et al., 2005).

8.1.1 Research approach and objectives

Chapter 5 presented the research approach taken in this study. The research design implemented a triangulated approach, which encompassed the use of surveys and interviews to meet the research objectives in two phases. In the first phase, responses were received from a sample of 226 external auditors working in small, medium and large audit firms to test the following hypotheses:

Hypothesis 1a: Attitudes toward whistle-blowing will have a positive, direct effect on whistle-blowing intentions among external auditors.

Hypothesis 1b: Desired moral approbation from others and from self will have a positive, direct effect on whistle-blowing intentions among external auditors.

Hypothesis 1c: Perceived behavioural control will have a positive, direct effect on whistle-blowing intentions among external auditors.

Hypothesis 1d: Independence commitment will have a positive, direct effect on whistle-blowing intentions among external auditors.

Hypothesis 1e: Personal responsibility for reporting will have a positive, direct effect on whistle-blowing intentions among external auditors.

Hypothesis 1f: Personal cost of reporting will have a negative, direct effect on whistle-blowing intentions among external auditors.

Hypothesis 2:   Perceived organizational support will moderate the relationships between individual-level antecedents (attitudes, desired moral approbation, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) and whistle-blowing intentions among external auditors.

Hypothesis 3:   Group cohesion will moderate the relationships between individual-level antecedents (attitudes, desired moral approbation, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) and whistle-blowing intentions among external auditors.

Hypothesis 4:   Team norms will moderate the relationships between individual-level antecedents (attitudes, desired moral approbation, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) and whistle-blowing intentions among external auditors.

Hypothesis 5:   Perceived moral intensity will moderate the relationships between individual-level antecedents (attitudes, desired moral approbation, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) and whistle-blowing intentions among external auditors.

In the second phase, the study used 18 interviews and 2 focus groups to explore whistle-blowing among external auditors. Specifically, the interviews were conducted to determine the willingness of auditors to report wrongdoing, the choice of reporting channels, the influence of individual and moderating factors on whistle-blowing, perceived consequences and recommendations for increasing whistle-blowing. Thus, the objectives were achieved by using the following research questions:

Research Question 1:   How willing are external auditors to whistle-blow on wrongdoing committed by colleagues in the audit firm?

Research Question 2:   What are the preferred channels of reporting wrongdoing among external auditors?

Research Question 3:   What is the role of individual factors on external auditors' ability to whistle-blow?

Research Question 4:   What is the role of team and contextual factors on external auditors' ability to whistle-blow?

Research Question 5:   What are the perceived consequences of whistle-blowing among external auditors?

Research Question 6:   How can whistle-blowing be increased among external auditors?

Figure 38: Conceptual model of whistle-blowing intentions among external auditors

Antecedents

- Attitudes toward whistle-blowing [a]

- Perceived behavioural control [a]

- Desired moral approbation [b]

- Independence commitment [c]

- Personal responsibility for reporting [d]

- Personal costs of reporting [d]

Kant & Rawls' autonomous and equal liberty

Institutional Theory

Isomorphism Factors

- Perceived organizational support [h]
- Team-based: group cohesion [f]
- Team-based: team norms [e]

Whistle-blowing (reporting) intentions [i]

Actual Behaviour

Effects:
- On society
- On audit firm
- On the whistle-blower

Issue-Specific – Perceived Moral Intensity [g]

i) Magnitude of consequences
ii) Social consensus
iii) Probability of effect
iv) Temporal immediacy
v) Proximity
vi) Concentration of effect

- Positive effect of whistle-blowing intentions:
- Moral duty, equal liberty and social justice
- Negative effect of whistle-blowing intentions:
- Institutional theory

a   adopted from Ajzen (1991);
b   adopted from Jones and Ryan (1997);
c   adopted from Gendron et al (2006);
d   adopted from Graham (1986) and Schultz et al. (1993);
e   adopted from De Jong et al. (2005);
f   adopted from Price and Mueller (1986) and Schminke and Wells (1999);
g   adopted from Jones (1991) moral intensity;
h   adopted from Eisenberger et al. (1990);
i   adopted from Park and Blenkinsopp (2009)
The rest of the model is based on the review and understanding of how external audit works.

8.2 Summary of key findings

This section summarises the key findings from the research. It briefly presents the results from the quantitative and qualitative phases similar to the structure of the conceptual model. Specifically, the section highlights findings for the willingness to whistle-blow (intentions), the influence of individual-level and moderating factors on auditors' whistle-blowing intentions.

8.2.1 Willingness to blow the whistle

The results of this study show that most auditors were quite willing to blow the whistle internally rather than externally. Respondents argued that issues needed to be corrected first internally. This is consistent with Near and Miceli's (1995) view that internal reporting provides the organization with an opportunity to internally correct wrongdoing and avoid 'airing their dirty laundry' in public.

8.2.2 The role of individual-level factors on auditors' whistle-blowing intentions

The study found mixed results for the influence of individual-level factors on external auditors' whistle-blowing intentions. For example, there was substantial support for the main effect of attitudes, perceived behavioural control, independence commitment,

personal responsibility and personal cost of reporting on whistle-blowing internally. However, support was found only for the impact of perceived behavioural control on auditors' whistle-blowing externally. Marginal support was found for personal responsibility for reporting on auditors' whistle-blowing externally ($p < .10$).

This study found that attitudes and perceived behavioural control (Ajzen, 1991), independence commitment (Gendron et al., 2006), personal responsibility for reporting and personal cost of reporting (Graham, 1986) were strong predictors of auditors' intentions to whistle-blow internally. This suggests that these variables are important drivers in the whistle-blowing process. It is important to note that factors such as independence commitment, personal responsibility and attitudes may be shaped by the auditors' code of professional conduct or socialization process for entry into the profession. These findings are not surprising, based on prior research on whistle-blowing (Park and Blenkinsopp, 2009; Kaplan and Whitecotton, 2001). In addition, auditors, who perceived high personal costs, were less likely to report internally and externally.

Another important finding from the research is that desired moral approbation did not have a significant impact on auditors' whistle-blowing intentions. It was proposed that people would need approval from oneself and others to drive ethical action. However, it was found that an ethical dilemma arose as a result of respondents requiring approval from themselves as well as approval from their colleagues and superiors. This may indicate that subordinates make their ethical decisions based on the need to have their actions approved by superiors (senior members in the firm). A troubling issue may arise in situations where the superiors may be condoning unethical practices.

Overall, most respondents deemed whistle-blowing as being an important control mechanism which could help to preserve the integrity of the audit firm. This may explain why factors such as attitudes, personal responsibility and independence commitment were significantly related to whistle-blow internally. However, the results show a general reluctance to report externally.

8.2.3 The influence of moderators on individual-level factors and whistle-blowing intentions

Perceived organizational support was found to have a significant moderating effect on the individual-level factors (attitudes, perceived behavioural control, independence commitment, personal responsibility for reporting and personal cost of reporting) and internal whistle-blowing intentions. However, perceived organizational support moderated the influence of the individual-level factors (attitudes, perceived behavioural control and personal cost of reporting) and external whistle-blowing. These findings show that whistle-blowing is likely to occur in an audit firm, where audit staff members perceive that there is some measure of support to buffer potential reprisals.

Based on the moderating effect of perceived organizational support, auditors demonstrated more willingness to engage in whistle-blowing internally, if they believed that there is the likelihood of full support of the audit firm's management. For example, support may be manifested in the culture of the organization which encourages ethical behaviour. Whistle-blowing is likely to occur in an organization, which shows that the wrongdoing will be corrected and that no form of discrimination will be taken against the whistle-blower. This illustrates the importance of personal cost to the auditor and the importance of self-preservation. It further highlights the importance of perceived organizational support as a catalyst for whistle-blowing and the choice of reporting

channel which is more likely to be used. This finding is consistent with Blau's (1964) social exchange theory and Gouldner's (1960) norm of reciprocity. These theories suggest that if workers feel that the organization will support them, they are more likely to show loyalty and commitment by doing what is necessary to protect it. This may explain why external auditors in the sample would not report externally. It was expected that the audit firm will implement the appropriate institutional arrangements (mimetic and normative isomorphisms) that will influence the acceptable ethical behaviour and norms (DiMaggio and Powell, 1983).

It was found that when group cohesion was low, there were significant positive relationships between the individual factors (attitudes, perceived behavioural control, independence commitment and personal responsibility for reporting) and internal whistle-blowing. However, support was only found for the significant positive relationship between independence commitment and external whistle-blowing, when group cohesion was low. When group cohesion was high, support was found for the significant positive relationship between personal costs and external whistle-blowing. The findings showed that potential whistle-blowers tended only to report in less cohesive groups. This may indicate that, in high cohesive groups, (through groupthink, in which the group stands to benefit), members tend to stick together and are more likely to cover up for each other (Janis, 1972; Finn, 1995).

The results also indicate that when team norms were high, there were significant positive relationships between the independent variables (attitudes, desired moral approbation, independence commitment and personal responsibility for reporting) and internal whistle-blowing. However, support was found for only significant positive relationships between the independent variables (attitudes and independence commitment) and external whistle-blowing. This current study lends support to Nichols

and Day's (1982) claim that groups may reach more ethical decisions than individuals. It may be that the firm's culture and the profession's norms are influencing the perceptions of ethical norms in the teams within this study. However, limited support for many of the variables for external reporting may suggest that the reluctance to report externally may be guided by the audit teams' norms for appropriate behaviour, which may not include external whistle-blowing (Hooks et al., 1994; De Jong et al., 2005; Narayanan et al., 2006).

This study found that when moral intensity was high, there were significant positive relationships between the individual-level antecedents (attitudes, perceived behavioural control, independence commitment and personal responsibility for reporting) and internal whistle-blowing. When moral intensity was high, there was a negative significant relationship between personal costs and internal whistle-blowing. The findings suggest that as the severity of the act or the potential to harm others increases (Jones, 1991; Shafer et al., 2001; Brennan and Kelly, 2007), there is an increased likelihood of reporting of wrongdoing internally. Thus, at higher levels of moral intensity, auditors will have stronger attitudes of perceived behavioural control (Ajzen, 1991; Bandura, 1997), a greater sense of personal responsibility and greater independence commitment in judging whether to report unethical acts internally, which may also be heavily influenced by the costs to self (personal cost) and the organization (Curtis, 2006). In contrast, when moral intensity was low, support was found only for the significant positive relationship between desired moral approbation and external whistle-blowing intentions.

8.3 Implications of findings

8.3.1 Theoretical implications of findings on the proposed conceptual model in the context of Barbados

Whistle-blowing is perceived as a control mechanism within organizations as a means of detecting and preventing wrongdoing (Hooks et al., 1994). Specifically, whistle-blowing can be used as a corrective mechanism embedded within audit firms to correct unethical practices committed by audit staff. This study found that auditors were more inclined to report internally rather than externally, thus providing the audit firm with the opportunity to correct the wrongdoing. Surprisingly, respondents held extremist views by seeking to choose loyalty to audit firms over acting in the public's interest, which may have been reinforced by the firm's and the profession's codes of conduct and professional training. In De George's (2006) view, there should be no extremist stance taken between basic liberty and duty of loyalty. It is imperative to acknowledge the importance of being dutiful to one's organization, by adhering to the basic fundamental principles that guide the operations of the organization. Thus, these principles are deemed necessary for the preservation of the organization (be it the audit firm) and the protection of employees. In other words, if whistle-blowing is permitted, then there should be protocol that clearly defines the reporting process.

Another important finding was that auditors were less likely to report externally, due to fear of reprisals. De George (2006) believes that external whistle-blowing should be instituted under the following conditions: (1) when there is a possibility of harm to the society, 2) a serious threat to the public, and 3) when internal reporting mechanisms have been exhausted. In other words, without consideration of these three factors, it would be deemed unjustifiable to report publicly. Thus, De George's (2006) view is that the prime duty of loyalty is owed to the organization.

In contrast, the Rawlsian's view of justice purports that freedom of speech overrides any duty of loyalty even to the organization, and in doing so, makes whistle-blowing acceptable as it truly represents the practice of freedom of speech. In this study, most auditors appear to be seeking to avoid harm to the audit firm rather than the public, and that is where a moral dilemma is being experienced. Harm should not be weighed based on where one's loyalty lies (i.e. place of employment) (De George, 2006). Lindblom (2007) further argues that, based on Rawls' theory of justice, where there is a right to freedom of speech including the right to whistle-blow, there should be no moral dilemma between loyalty to the organization and whistle-blowing. In other words, duty of loyalty to the organization should not restrict the right to whistle-blow. This ideology is based on the premise of Rawlsian's theory, in which there is supposed to be freedom of speech that is granted to all individuals based on the constitution. However, the reluctance to commit to this freedom of speech may be influenced by the power of those who control the economic resources (such as the employer) which in effect creates a moral dilemma. This may explain why auditors are reluctant to whistle-blow externally, due to a perceived sense of loyalty to the employer, as well as to the lack of state-sponsored social security for those who may lose their livelihood for standing up for the interest of the public.

Prior research has found that there are cultural differences on the acceptability of whistle-blowing (e.g. Keenan, 2002; Patel, 2003). This study revealed that, while the wrongdoing was perceived as being serious and unethical, whistle-blowing was perceived as being ethical. However, despite these views on the ethicality of whistle-blowing and seriousness of the wrongdoing, many auditors were not motivated to take action. The mean scores in this study tended to be around the middle of the scale of 1 to 7 for internal reporting, but on the low side for external reporting. This reluctance may

also be driven by audit staff's tendency to accept the status quo and a general unwillingness to speak out on unethical issues (Zhang et al., 2009).

In Barbados, the apparent reluctance to whistle-blow externally may be further explained by the influence of its culture. Punnett, Dick-Forde and Robinson (2006) suggested that the culture of Barbados is individualistic, hierarchical and one of seeking security. The individualism may be a direct result of the colonial past and Christianity. These authors also argued that Barbadians can be considered as more oriented to "being" rather than "doing", which suggests a need to be a part of one's personal and professional ties. In addition, they argued that Barbadians accept unequal distribution of power as appropriate (Punnett et al., 2006). This may be directly linked to the colonial past, where plantation societies were the order of the day.[28] Similarly, Stoddart (1995) argued that institutions such as religious and educational bodies, which encourage obedience, reinforced the beliefs and practices required to maintain status quo in society.

Barbados, a democratic society, allows freedom of speech, but there appears to be a limitation to that freedom which may be steeped in colonial mentality and obedience to powerful figures. The relationship may be regarded as a love-hate relationship, in which there may be total dislike for unethical practices, but yet blinded by allegiance to the audit firm or power responsible for the livelihood of the individual whose family members may be dependent on them and therefore, any decisions engaged in will require the approval of these significant others. This finding is consistent with Mesmer-Magnus and Viswesvaran (2005), who argued that what people propose to do and actually do is often incongruent. However, if the wrongdoing

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[28] Beckford (2001) argued that "modern Caribbean society displays structural forms that are a direct legacy of the slave plantation system" (p.139). A plantation society is a political order, dominated by plantation owners. In other words, a plantation society is one in which the power is in the hands of the planter class (owners), who are directly responsible for making top down decisions.

negatively affects the potential whistle-blower, then there is the likelihood that action may be taken. This supports Rawls' (1971) belief that human beings have the ability to choose their own ends. The findings show that with respect to the democratic rights of Barbadians to speak freely, citizens may accept the limitation of such freedom within organizational settings, which diverges from Rawls' theory that justice and free speech should be allowed within any institution.[29] There is recognition that one has a duty of loyalty to the organization, but duty to the firm should never surpass the duty to report acts of wrongdoing.

In Barbados, respect means not being confrontational, challenging and bringing shame to individuals which may result in the loss of self-respect and the respect of others (Barrow, 2001). However, the demonstration of acts of respect to an individual may not be indicative of one's true feelings. Any feelings of discord may be conducted behind closed doors or 'behind one's back', hence, the reason why whistle-blowing may not be publicly discussed. In addition, direct questions, reference to names or source of information are avoided, thus corroborating the responses of the respondents, who indicated their preference for internal and most of all, anonymous reporting. This confirms the concerns shared by respondents with regard to fear of reprisals such as demotion, ostracism, lack of promotional opportunities, lower job satisfaction and family life being disrupted. Barrow (2001) further argued that Barbadian culture may be viewed as being suspicious, maintenance of status quo and a 'façade of politeness and friendliness.'

The reporting of unethical acts may incur the wrath of others in the firm, profession and society as a result of upholding the ethical codes of the profession. For

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[29] The limitation of freedom implies the lack of support (e.g. financial, psychological, social and moral) by the state and other macro institutions in the country. Hence, if the state and the profession have adequate protection plans or appropriate mechanisms in place, the practice of freedom to make decisions will be much stronger.

example, one may be labelled a traitor, not being a team player or accused of having 'a good face and a bad mind', of being 'malicious' and 'low-minded' (Barrow, 2001). Barbadians are mindful of the perceptions that others form of them, because it directly reflects on their families and friends which sustains their feelings of pride and shame. This may justify the need for some respondents to seek the approval of significant others when making ethical decisions. Barrow (2001) further argues that the importance of family within the Barbadian society, which may seem to be slowly dissipating, still has remnants of traditional values from older generations which have filtered down to the present society. However, there were instances in which some practitioners were firm in their decisions to whistle-blow, based more on the guidance of superiors (e.g. partners) and colleagues in the firm.

The significant findings of the majority of antecedents in the conceptual model confirm that practitioners in Barbados have the tendency to be autonomous, perceived equal liberty and felt rationally capable of acting ethically, as suggested by Kant (1964) and Rawls (1971). However, the findings suggest that acting ethically in the form of whistle-blowing is perceived to be very costly (high personal cost). Thus, it may be the consequences of whistle-blowing that determine whether to blow the whistle or not. Should whistle-blowing be duty-based or voluntary-based? If whistle-blowing is perceived as being duty-based, the practitioner should ignore factors such as moral intensity, personal cost and perceived behavioural control. If it is seen as a voluntary behaviour, practitioners would consider moral intensity, personal cost and perceived behavioural control, and then decide on whether to act or not.

The findings of this study contradict the duty-based argument. It is assumed that whistle-blowing may be often exercised because (i) it is a voluntary-based act and (ii) it is often associated with low personal cost. However, the findings suggest that whistle-

blowing is seen by the profession as being duty-based (not voluntary), and hence it makes whistle-blowing to be very costly to do, which is contrary to the code of ethics (e.g. see AICPA, 2007). Hence, this implies that on the one hand, the profession considers whistle-blowing as being a noble duty to act in the public's interest, but on the other hand, makes it very costly and also makes the audit environment to be less controllable or autonomous (i.e. low perceived behavioural control).

This study also shows that whistle-blowing internally among auditors in Barbados is more likely to occur when there is higher organizational support, higher team norms, lower cohesiveness in groups and higher moral intensity. Institutional theory offers an explanation for these findings. For example, mimetic and normative isomorphisms are appropriate here, as audit firms should put mechanisms in place to enhance compliant behaviour (DiMaggio and Powell, 1983). The findings from this study show that, where audit firms create the appropriate environment for encouraging sound ethical behaviour, audit staff is more likely to perform honest whistle-blowing. For example, the majority of respondents reported the existence of an open-door policy, the presence of ethics and risk managers and anonymous hotlines as avenues for whistle-blowing. An important finding in this study was the presence of an open-door policy, which could create trust among audit staff. If audit practitioners are uncomfortable with the firm's policy, then the possibility exists that whistle-blowing will not be performed. The issue of an open-door policy is in direct contrast with Miceli et al. (2008), who argued that an open-door policy is insufficient to bring about compliance. However, these findings show that an open door policy can work among auditors.

This study provides ample evidence that the majority of the constructs of prior ethical decision-making models can predict whistle-blowing intentions. Specifically,

support was found for key variables (personal cost of reporting and personal responsibility for reporting) of Graham's (1986) model of principled dissent. In addition, it was seen that attitudes and perceived behavioural control of Ajzen's (1991) theory of planned behaviour were useful predictors of whistle-blowing behaviour. Limited quantitative support was found for desired moral approbation used in this study as a substitute for subjective norms, a variable in the theory of planned behaviour. Given that the interviewees showed a need for approval from different referents, future research can use other constructs that measure social influences and test for the importance of these significant others.

8.3.2 Practical implications in the Barbadian context

8.3.2.1 Individual practitioners

The results of this study offer important insights for audit practitioners. It was found that internal reporting was preferred to external reporting. Interestingly, audit staff felt that there were sufficient liberties within the organization to whistle-blow. For example, these could be done through the use of anonymous hotlines, an open-door policy and availability of ethics and risk managers for reporting the wrongdoing. Evidence in this study also indicates that even when these mechanisms are implemented and exhausted, external whistle-blowing may still not be performed by audit staff. Most practitioners were resolute in their decision not to engage in external whistle-blowing, with a resounding preference for internal reporting. This may explain the absence of publicized cases of whistle-blowing among auditors in Barbados.[30]

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[30] Certainly, there may be cases of internal reporting and with the significant number of corporate failures in the global market, it is interesting that there are no known cases of auditors' whistle-blowing. It is possible that the corporate scandals could be outliers, with the vast majority of potential scandals, being resolved through internal whistle-blowing. The possibility may also exist that junior staff may have reported any irregularities up the chain of command, thus leaving their superiors to resolve the issues.

In the United States, whistle-blowing tends to be sensationalized, whereas in Barbados, it may have the opposite effect, depending on who stands to benefit or lose.[31] It is quite possible that potential whistle-blowers in this sample may consider the consequences of their actions which could lead to loss of jobs, closure of businesses, and a negative effect on the economy and image of a small developing country. In addition, there is recognition that moral and societal obligations, which are instrumental to the process of reporting, could be thwarted based on the culture of the firm which may be oriented towards profit-making. These results demonstrate an overwhelming avoidance to whistle-blow externally and may strengthen the call for the selection and retention of auditors to be taken out of the hands of the clients, who are responsible for paying the audit firms. This should avoid any undue pressure being placed on the auditor to satisfy the client.

The study also found that individual practitioners perceive the importance of whistle-blowing as a control mechanism within audit firms, given the seriousness of the wrongdoing. Hence, this importance necessitates that the profession must respond and meet the needs and expectations of practitioners. The results also suggest that whistle-blowing is an action or process that requires the appropriate level of professional attitudes, perceived behavioural control, personal cost of reporting, personal responsibility for reporting and independence commitment. Thus, the profession in Barbados needs to pay more attention to enhancing these personal qualities as a means of ensuring that the practitioner follows ethical practices. Specifically, practitioners need to be instilled with more perceived behavioural control, personal responsibility for reporting, and independence commitment as well as low personal cost of reporting to

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Given that audit staff work on multiple engagements, these staff members may not spend sufficient time on the engagement to see the eventual outcome of the whistle-blowing complaint.

[31] Miceli et al. (2008, pp. 381-382) argued that whistle-blowing was more acceptable in the United States than in any other culture, and this is reinforced by laws that protect the whistle-blower.

encourage whistle-blowing. This can be achieved through purposive ethics training and creating a supportive and ethical culture in the organization.

From a practitioner's perspective, two additional points can be deduced from these findings. Firstly, the practitioners did not perceive external whistle-blowing as unethical or unprofessional (anti-profession attitude), but instead they ranked it as a secondary option to internal whistle-blowing. This may imply that the practitioner can utilize the required channels to effect satisfactory resolution to any wrongdoing. This can be considered as an adequate control mechanism. Secondly, the findings suggest that external whistle-blowing could be preferable when perceived behavioural control is high. That is, the practitioner perceives some measure of control over external whistle-blowing, when the potential harm to the practitioner is minimal. This finding has a profound implication for the profession in Barbados. Hence, perceived behavioural control may be a major issue that needs to be addressed by the profession, if it wants to be perceived as being highly independent and well respected. Perceived behavioural control should be explored in future research by the profession, as it is beyond the limit of this study to further the understanding on how perceived behavioural control may affect the image of the individual, firm and accounting profession.

8.3.2.2 The profession (including the firms)

This study found that the majority of antecedents in the conceptual model were significantly associated with whistle-blowing. This suggests that the profession currently comprises individuals who share similar personal characteristics. These characteristics portray an individual, who is not willing to whistle-blow externally, and certainly will not challenge the unsatisfactory or inappropriate response of a superior or

colleague. Thus, there is a clear need for staff development. Audit firms need to ensure that the recruitment process selects individuals who are ethically sensitive, have the capacity to stand up for their beliefs and be able to report questionable acts committed by colleagues. For example, the recruitment process can include the use of personality and integrity testing which should assist in improving the quality of potential entrants to the profession. In addition, human resource departments in the audit firms can use training programmes designed to sensitise staff on the steps required to resolve ethical conflicts, and raise the level of moral development, enhance professional attitudes and increase personal responsibility for reporting (Zhang, Chiu and Wei, 2009).

The majority of respondents proposed that the audit firm's protocol on whistle-blowing should be formally documented, and made available to members of staff. Visual reminders on how to use the hotline or to report anonymously should be placed at strategic points within the audit firm to help facilitate the process. Further emphasis was placed on the importance of an open-door policy, need for confidentiality, anonymity (hotline), greater use of ethics and risk managers, offering financial incentives, performance review systems (Miceli et al., 2008), psychological support for the whistle-blower, provision of on-going education and training, updating of the code of ethics, and the promotion of independence. These findings are consistent with Miceli et al. (2008), who suggested that control mechanisms should be implemented to support whistle-blowing. An ethical corporate culture can also be created and guided by top management in the firm. The firm can set policies for what constitutes acceptable behaviour, the consequences of engaging in wrongdoing as well as for not reporting.

This study found that many of the respondents in the interview phase felt that their ethical decisions were influenced by their important others (peers, superiors and family). Hence, management in the audit firms needs to find ways of encouraging these

referents to support ethical behaviour. Gibson and Frakes (1997) suggested that public recognition could be given to those referents for supporting ethical practices. For example, public recognition may include the granting of awards and publicity in the media.

The study's findings also inform the profession as well as the accounting firms that the required personal qualities of individual practitioners should consist of high attitudes, perceived behavioural control, independence commitment and personal responsibility for reporting, and low personal cost. Individuals, with these personal values, will be more likely to blow the whistle internally. Arguably, with more perceived behavioural control, the preferred channel of reporting could be extended to include external channels. However, an investment in organizational support for internal reporting is necessary, as it responds to the moral needs of practitioners. High perceived organizational support and high organizational commitment should encourage the practitioner to do all that is possible in avoiding harm to the firm, profession and society.

The results indicate that the Barbadian audit profession may not be receptive to external whistle-blowing. Therefore, it may be necessary for audit firms to pay more attention to the further development of internal rather than external reporting behaviours, as suggested by Chiu (2003). For example, there could be better use of the anonymous reporting channels (e.g. the hotline). The internal reporting channels could be more refined to include clearly defined procedures, which could prevent any potential damage to the reputation of the firm and the profession.

This study also found that independence is critical to whistle-blowing, which is consistent with Rawls' (1971) and Kant's (1964) views, which point out the importance of self-control, self-direction and freedom of expression. These findings show that audit

firms need to implement measures and the appropriate interventions, which can improve attitudes towards whistle-blowing, the level of control over reporting, and personal responsibility in an effort to reduce fear of reprisals. Audit firms' top management must ensure that the right values (e.g., morality, openness and ethics) are entrenched within the firm, so that audit staff can feel that there is a personal responsibility to report. Firms should implement procedures and policies to prevent retaliation by possibly creating an independent committee outside of the firm for staff to make their reports. These interventions can assist in creating an ethical environment which can only lead to the enhancement of the firm's image and reputation.

Personal cost was found to be a major factor influencing auditors' whistle-blowing intentions. A review of personal cost and how it may be minimised can provide due assurance to the practitioners, who may have the ambition to improve the image of the profession, but find it too costly to do so. One may ask why is whistle-blowing perceived as being costly in the profession? Is this policy still appropriate for today's social, technological and economic age? It would be appropriate to change the practitioners' code of professional conduct to highlight the rights of the practitioners when they blow the whistle. Hence, having perceived organizational support alone may be sufficient as long as personal cost remains high and the code of ethics remains silent on enforcing and protecting the practitioners' rights in reporting wrongdoing. The profession stands to benefit from supporting ethical behaviour rather than enabling wrongdoing, which may cost the firm in the long term.

This study highlighted an important finding that affects how groups should operate.[32] The results show that auditors are more likely to whistle-blow in less

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[32] Audit engagements are performed by audit teams. It is expected that the team should be a cohesive unit. However, one auditor argued that in an audit firm, one is usually working on many engagements, and with time being an important factor, there is not much time for social interaction, hence the absence of high group cohesion.

cohesive teams. While it may seem to be disruptive, making the group less cohesive may be a step in the best direction to facilitate whistle-blowing. However, this may not be generalized to other professional and product driven organizations that depend on high group cohesion to deliver services or manufacture products. The audit firm may need to direct the cohesiveness effort at getting the job done rather than creating an atmosphere of close in-groups that will enable unethical behaviour.

8.3.2.3 Society (Barbados)

The findings indicated that practitioners still consider religion, family and friends as valid sources for ethical approval. However, the profession seems to have embraced materialism as part of its doctrine. Hence, society may need to determine the tolerable level which it will accept for its value system. The state should find ways to ensure that its members engage in moral behaviour. This is similar to coercive isomorphism, in which the state can impose mechanisms (e.g. revising the ethics and moral codes, governance systems, enact legislation) in society to regulate behaviour (DiMaggio and Powell, 1983). Given that the image of the profession and the quality of life in the society may be at stake, state intervention could improve the ethical and spiritual needs of practitioners, which may be in the best interest of all concerned. For example, churches and schools could play significant roles in developing the quality of people and the appropriate moral values in the society.

These findings corroborate the argument of Zhang et al. (2009) for Chinese culture, which emphasized the importance of respect for the decisions of the elderly and authority figures in their organizations and society at large, while making every attempt to live and work in harmony with others. Similarly, any deviation from these norms in Barbadian society may be interpreted as disrespectful and the whistle-blower

may be perceived negatively. Thus, the state can create regulatory mechanisms as well as provide avenues for potential whistle-blowers to report wrongdoing. These mechanisms can include the establishment of special reporting units, with members of the judiciary and clergy on board.

8.4 Limitations

There are several limitations to this research. This study focused primarily on external auditors in audit firms to determine their willingness to report on colleagues. The study did not examine whistle-blowing among internal and government auditors. Thus, a limitation exists with respect to its generalisability to other professions and other forms of auditing within the audit profession. Although every attempt was made to make the sample representative of the population, there is still potential for sampling error.

This study sought to measure whistle-blowing intentions and not actual behaviours. Ajzen (1991) argued that intention is a proxy for actual behaviour. However, there were no publicized cases of whistle-blowing in Barbados that the researcher could use to compare the findings in this study. Furthermore, whistle-blowing, being an ethically sensitive topic, may have evoked feelings of uneasiness or fear of reprisals among respondents. Indeed, respondents were apprehensive when asked to discuss actual whistle-blowing experiences, and have noted that they were not aware of such cases. This may indicate a reluctance to share sensitive information, which may be explained by the national culture of Barbados. In addition, this study did not examine the influence of national culture on whistle-blowing intentions, given that some cultures, such as the USA, sensationalise the phenomenon.

This researcher took every precaution (for example, anonymity and confidentiality) to ensure honest reporting of responses. Although social desirability

bias was controlled for, the possibility exists that respondents may have embellished their responses to portray themselves and the profession in a favourable light. Social desirability bias was possibly further experienced in the interviews and focus groups, in which respondents may have been more guarded in their responses since anonymity would have been significantly lowered. Although informed consent was obtained and confidentiality was assured, the ability to identify individuals may influence social desirability bias.

A further limitation to this study was the small size of the groups and the lack of significant between-group variability in the dependent variables, which did not facilitate the full utilisation of hierarchical linear modelling (HLM). This may limit the generalisability of the findings to larger groups or teams. For instance, the average size of the groups in the study was 3 to 5 members, and as a result, based on arguments made in chapter 5, HLM may be more appropriate for large sample nested designs.

8.5 Suggestions for future research

Beside individual factors, the conceptual model incorporated the impact of teams or groups on ethical decision-making (whistle-blowing). Dukerich, Nichols, Elm and Vollrath (1990) suggest that "because problems that pose moral dilemmas are often addressed by groups such as boards of directors, crisis management teams, disciplinary boards, or city councils, it is important to understand how decision-makers collectively consider and resolve moral problems" (p.473). Indeed, Trevino et al. (2006) support the call for more studies on the influence of groups in behavioural ethics. In addition, the several studies that researched decision-making among groups used convenient student samples rather than actual members from client organizations and audit firms. Thus,

future research may empirically consider looking at the impact of groups on the whistle-blowing process in actual work settings.

Another potential rich area for future research is in the use of institutional theory to understand whistle-blowing behaviour. There has been little research which utilises institutional theory in the whistle-blowing literature. It is important to understand the impact of isomorphic mechanisms (corporate governance structures) such as audit committees, non-executive directors and other strategic institutional processes on the whistle-blowing phenomenon. While isomorphic mechanisms are the result of increase pressures from the government or the profession to adopt certain professional and bureaucratic designs to increase homogeneity among audit firms, the impact of such pressures may also result in some elements of the personal antecedents, described in the model, not to change. Hence, this may demonstrate resistance to the institutional, team and issue-specific pressures.

The theoretical arguments in designing the model utilize Rawls' (1971) theory of justice and Kant's (1964) moral duty. Rawls proposed justice as fairness based on societal liberties, while Kant proposed justice based on a deontological perspective. Future research could use this framework of whistle-blowing among audit practitioners to look at justice from the societal level as well as the organization level. This is critical given that there is a difference between Rawls' theory of justice and organizational theory of justice as well as between deontological and teleological ethical perspectives. Thus, there is a need to identify which justice notion is the preference of the profession. Rawls' justice looks at the society as a whole, while organizational justice deals with the specific aspects such as distributive and procedural justice. Hence, much research is needed in both areas.

Most of the research on whistle-blowing has been conducted using questionnaires, experiments and student samples. Future research could study whistle-blowing in field settings. As stated previously, the use of workplace samples could help to create real life understanding of whistle-blowing behaviour. Specifically, a critical incidents approach could be used where organizational members could be asked to recall whistle-blowing incidents and how they resolved them. In addition, rich information can be obtained from using other qualitative methodologies such as focus groups.

The present model attempts to bring greater depth of understanding to auditor decision-making in audit reporting issues by looking at individual, team and contextual (issue-specific) factors. Further testing of this model can aid policy-makers and professional bodies in developing and incorporating adequate ethics requirements in the codes of professional conduct to increase auditors' ethical awareness. Specifically, future empirical research on this model can also help auditors and audit firms to decide on appropriate training needs for staff. Given the high personal costs of reporting in some societies, future work can also be conducted on testing for the influence of national culture on whistle-blowing.

Finally, it is hoped that this model can assist in gaining insights about the extent to which auditors perceive themselves as moral agents. The study contributes to the ongoing public debate of ethics in the auditing profession. The issue is how can one ensure or improve the integrity of the auditing profession such that members are able to discharge their social function of acting in the public's interest. To address this issue, empirical research on the psychological and behavioural aspects of whistle-blowing is a necessary (if by no means sufficient) element in the developing the understanding required. This thesis begins to develop this understanding.

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APPENDIX A

Ethics Approval Letter

UNIVERSITY OF
BRADFORD
MAKING KNOWLEDGE WORK

Prof R H Pike
School of Management
University of Bradford

1st June 2009

Dear Prof Pike

Ethics Application Ref: E.10
Title: "The Influence of Individual, Team and Contextual Factors on Auditors' Whistleblowing Intentions"
Student: Philmore Alleyne

At the last meeting of the University of Bradford Humanities, Social and Health Sciences Research Ethics Panel held on 12th May 2009 consideration was given to the above ethics application and approval was given for the above study to go ahead.

Regards

Lynda Nuttall

pp. Andy Scally
Chair
Humanities, Social and Health Sciences
Research Ethics Panel

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358

APPENDIX B

General Instructions Letter

Philmore Alleyne
Lecturer in Accounting
Department of Management Studies
University of the West Indies, Cave Hill Campus, Barbados
Tel: (246) 417-4295 Fax: (246) 438-9167 Cell: (246) 256-6695

December 26, 2008

Dear Participant

Study of whistle-blowing intentions among auditors – Barbados
General Instructions for Completing Questionnaires

This study examines whistle-blowing being done among auditors in Barbados. I would like to set out the following brief guidelines to assist in the completion of the attached questionnaire.

a) Since the study focuses on audit groups/teams, each team (e.g. partner, and other varying levels of staff) can collect questionnaires to be filled out by <u>each</u> member of the usual audit team (e.g. the team that worked on the last engagement(s)).

b) Each team should choose their own specific 4-digit alpha-numeric code (e.g. AY23) for each team member to write in the space provided on Page 1 marked "Team Code" on each questionnaire that is filled out. This is done to facilitate the aggregation of individual responses into an overall average score for each team during the data analysis stage. The questionnaires for each team should be bundled together with a paper clip or staple or any other device for ease of tracking the group's responses.

c) A preferred approach could be that each team can sit together in a room and allow individual members to fill out a questionnaire without interruption. Alternatively, team members can fill them out at their leisure but they need to agree on the team code to put on each member's questionnaire.

d) Please do not put your name or name of the organization or the name of any individual on the questionnaire. When the questionnaires are completed, please drop each team's stack of questionnaires that are bound together in the box provided. Do not disclose your team code to anyone outside of your team. Confidentiality and anonymity must be maintained.

I look forward to your participation. Please enjoy.

Yours sincerely

Philmore Alleyne

APPENDIX C

Survey Questionnaire

The University of Bradford

A Study on Factors influencing Whistle-blowing Intentions among Auditors in Barbados

Dear Participant

Thank you for agreeing to participate in this study. This questionnaire should take approximately 25-30 minutes to complete. There are no right or wrong answers, as I am seeking to gain your perceptions on a range of issues.

Description: The purpose of this research is to explore the issue of whistle-blowing, and to gain a deeper understanding of ethics among auditors in Barbados. The attached questionnaire is part of my PhD research.

Confidentiality and Anonymity: Responses to the survey are anonymous and all completed survey material is strictly confidential. In this regard, **no names of individuals or organizations** will be collected or used in the survey. To ensure anonymity and confidentiality, please do not put any identifiers on to the questionnaire. You should only write your independently selected 4 digit coded number in the top right hand corner of the first page of each questionnaire instrument, so as to link your responses to your group's questionnaires. No one from the organization will see any of the completed questionnaires. Feedback will be in the form of reports or presentations that include summary results on the group level only.

Informed Consent: According to the University's Research Ethics guidelines, by completing this survey, I understand that you are giving your informed consent to participate in this study. You consent to voluntarily participate in this study, and therefore you can withdraw at anytime.

When you have completed the questionnaire, please put it in the prepaid, addressed envelope, seal it and drop it in the mail or the box placed in your organization.

Thank you very much for your consideration of my request. Should you wish any more details on the research, please ask the undersigned. Your assistance will be very important and valuable in the successful completion of this study. Please enjoy.

Yours sincerely

Philmore Alleyne
Lecturer in Accounting

SECTION 1: DESIRED MORAL APPROBATION

	Instructions: **Please answer the questions below by circling the number that best corresponds to your chosen response.** *(Adapted from Ryan & Riordan, 2000)*	Completely disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Completely agree
DMA-OP	*Desired moral approbation from others – praise*							
1.	I want others to think that my decisions are ethical.	1	2	3	4	5	6	7
2.	I want others to view me as a moral person.	1	2	3	4	5	6	7
3.	I hope others view my behaviours as ethical	1	2	3	4	5	6	7
4.	I want others to support my decisions on moral issues.	1	2	3	4	5	6	7
5.	I want others to praise my choices in ethical situations.	1	2	3	4	5	6	7
DMA-OB	*Desired moral approbation from others – blame*							
6.	I do not want to be criticized when I do not do the right thing.	1	2	3	4	5	6	7
7.	I do not like others to blame me even when I am in the wrong.	1	2	3	4	5	6	7
8	I do not like to be criticized for doing something wrong	1	2	3	4	5	6	7
DMA-S	*Desired moral approbation from self*							
9.	I do not care what other people think as long as I know that I have done the right thing	1	2	3	4	5	6	7
10.	I do what I think is right, no matter what anyone else thinks	1	2	3	4	5	6	7
11.	I do not worry about what other people think when I do something that I know is right	1	2	3	4	5	6	7
12.	I do not worry about others' opinions as long as I feel confident about the ethical decisions that I make.	1	2	3	4	5	6	7

SECTION 2: INDEPENDENCE COMMITMENT, PERCEIVED ORGANIZATIONAL SUPPORT, TEAM NORMS, GROUP COHESION,

	Instructions: **Please answer the questions below by circling the number that best corresponds to your chosen response** *Independence Commitment (Adapted from Gendron et al., 2006)*	Completely disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Completely agree
13.	I believe that independence is one of the main foundations of the accounting and auditing profession.	1	2	3	4	5	6	7
14.	I believe that the profession's independence requirements need to be strictly enforced in every sphere of activities in which public accounting firms are involved.	1	2	3	4	5	6	7
15.	I think the profession would be more highly regarded if the profession's independence requirements for auditors in public practice were more rigorous	1	2	3	4	5	6	7
16.	I think that stakeholders in general (e.g. business community) would benefit if the profession's independence requirements in public practice were more rigorous.	1	2	3	4	5	6	7

	Instructions: **Please answer the questions below by circling the number that best corresponds to your chosen response** *Perceived organizational support (Eisenberger et al., 1997)*	Completely disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Completely agree
17.	My organization cares about my opinions.	1	2	3	4	5	6	7
18.	My organization really cares about my well-being.	1	2	3	4	5	6	7
19.	My organization strongly considers my goals and values.	1	2	3	4	5	6	7
20.	Help is available from my organization when I have a problem.	1	2	3	4	5	6	7
21.	My organization would forgive an honest mistake on my part.	1	2	3	4	5	6	7
22.	If given the opportunity, my organization would take advantage of me.	1	2	3	4	5	6	7
23.	My organization shows very little concern for me.	1	2	3	4	5	6	7
24.	My organization is willing to help me if I need a special favour.	1	2	3	4	5	6	7
25	My organization values my integrity	1	2	3	4	5	6	7

	Instructions: **Please answer the questions below by circling the number that best corresponds to your chosen response** *Team Norms (De Jong et al., 2005)*	Completely disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Completely agree
26.	Our audit team develops standards over and above those specified by the firm to judge our performance by.	1	2	3	4	5	6	7
27	Our audit team members share common expectations about the behaviour of all work group members.	1	2	3	4	5	6	7
28.	Our audit team members have identified the strengths and weaknesses of individual work group members.	1	2	3	4	5	6	7
29.	Our audit team members share common expectations about the behaviour of particular work group members with specific responsibilities	1	2	3	4	5	6	7
30.	Our audit team members share common expectations that the behaviour of the group will be ethical	1	2	3	4	5	6	7

	Instructions: **Please answer the questions below by circling the number that best corresponds to your chosen response,given the highlighted (bold) items in each question below** *Group Cohesion (Price and Mueller, 1986)*	1- Not at all	2	3	4 – Neutral	5	6	7- Very
31.	To what extent do you **trust** the members of your audit team?	1	2	3	4	5	6	7
32.	To what extent are the people in your audit team **helpful** to you in getting your job done?	1	2	3	4	5	6	7
33.	To what extent are people in your audit team **friendly**?	1	2	3	4	5	6	7
34.	To what extent do people in your audit team take **a personal interest** in you?	1	2	3	4	5	6	7
35.	To what extent do **you look forward to being with the members** of your audit team each day?	1	2	3	4	5	6	7

Read the following scenario carefully, and answer the questions below.
Scenario 1 –
You are a junior auditor, working for an auditing firm and you are conducting an annual audit of a highly valued client, a machinery manufacturer that was about to go **public**. During the audit, you discovered that the manufacturing company had received a large loan from the local savings and loan association. It was illegal for a savings and loan association to make a loan to a manufacturing firm; they were restricted by law to mortgages based on residential real estate. You took the working papers and a copy of the ledger showing the loan to the engagement partner. The engagement partner, Tom Jones, listened to you, and then told you, "Leave the papers with me. I will take care of this privately." **You later learn that Tom has shredded the papers and has taken no further action.** If one was to shred the papers, this would be in direct violation of the principle of "Integrity" of the IFAC's Code of Ethics. *Adapted and modified from Rau and Weber (2004).*

Instructions: Please circle the number that best corresponds to your chosen response.

	Scales adapted: Moral intensity (Coram et al., 2008), seriousness, personal responsibility and personal cost (Schultz et al., 1993)	**Very low**						**Very high**
1	Please assess the performance of **Tom's** act leading to an incorrect audit opinion (probability of effect to financial statement users).	1	2	3	4	5	6	7
2	What is the probability that **Tom's** act of shredding the paper will be discovered by higher management?	1	2	3	4	5	6	7
3	If the act of shredding the papers was discovered, what level of disciplinary action would an auditor face for committing the same act of shredding the paper?	1	2	3	4	5	6	7
4	Please assess the seriousness (i.e the amount of social harm done) of **Tom's** act of shredding the papers.	1	2	3	4	5	6	7
5	Please assess the personal costs to you as an audit staff person (i.e trouble, risk, discomfort) of informing higher management of **Tom's** act of shredding the papers	1	2	3	4	5	6	7
6	Please assess your personal responsibility (i.e duty or obligation) for informing higher management of **Tom's** act of shredding papers.	1	2	3	4	5	6	7

NB: 2 = Moderately; 3 = Slightly; 4 = Neutral; 5 = Slightly; 6 = Moderately

	Attitudes	Not very True						Very true
	How **true** do you think that the following statements are with regard to you reporting **Tom's act of shredding the papers** in an audit firm?							
7	Blowing the whistle **on Tom** would help prevent serious harm to the audit firm	1	2	3	4	5	6	7
8	Reporting **Tom's action** is helpful in controlling unethical behaviour	1	2	3	4	5	6	7
9	Whistleblowing **on Tom** enhances the public interest	1	2	3	4	5	6	7
10	Reporting **Tom's action** in the workplace is a way for an employee to do his or her duty	1	2	3	4	5	6	7
11	Whistleblowing **on Tom** is the moral thing to do	1	2	3	4	5	6	7
	If you reported **Tom's** action, how **important** do you think the following consequences would be to you?	Not very important						Very important
12	Prevention of harm to the audit firm	1	2	3	4	5	6	7
13	Control of unethical behaviour	1	2	3	4	5	6	7
14	Enhancement of public interest	1	2	3	4	5	6	7
15	Performing one's duty as an employee	1	2	3	4	5	6	7
16	Moral satisfaction on one's part	1	2	3	4	5	6	7
	Subjective norms							
	How **proud of you** do you think the following persons would be if you reported **Tom's action**?	Not very much						Very much
17	Members of one's family	1	2	3	4	5	6	7
18	Co-workers	1	2	3	4	5	6	7
19	Immediate supervisor	1	2	3	4	5	6	7
20	Friends	1	2	3	4	5	6	7
21	Neighbours	1	2	3	4	5	6	7
	How **much do you care** whether the following persons would approve or disapprove of your reporting of **Tom's** action?	Very little						Very much
22	Members of one's family	1	2	3	4	5	6	7
23	Co-workers	1	2	3	4	5	6	7
24	Immediate supervisor	1	2	3	4	5	6	7
25	Friends	1	2	3	4	5	6	7
26	Neighbours	1	2	3	4	5	6	7

NB: 2 = Moderately; 3 = Slightly; 4 = Neutral; 5 = Slightly; 6 = Moderately

Scales adapted from Park and Blenkinsopp (2009).

	Perceived behavioural control							
	If you report **Tom's** action in an audit firm, how likely do you think the following are?	**Not very likely**						**Very likely**
27	The audit firm will hinder/ignore my reporting every step of the way	1	2	3	4	5	6	7
28	The difficulties to be faced in the process of my reporting will be too great for me to endure	1	2	3	4	5	6	7
29	My reporting won't make any difference	1	2	3	4	5	6	7
30	I will be subjected to retaliation from the audit firm	1	2	3	4	5	6	7
	If you report **Tom's** action, how **important** do you think the following are to you?	**Not very important**						**Very important**
31	The audit firm's hindering reporting (or ignoring it)	1	2	3	4	5	6	7
32	Difficulties to be faced in the process of reporting	1	2	3	4	5	6	7
33	No chance to correct wrongdoing	1	2	3	4	5	6	7
34	Retaliation by the audit firm	1	2	3	4	5	6	7
	Reporting intentions							
	With respect to **Tom's** act of shredding the papers,	**Extremely unlikely**						**Extremely likely**
35	How likely is it that **you** would inform higher management of **Tom's** act ?	1	2	3	4	5	6	7
36	How likely is it that **other auditors** in the office who have become aware of **Tom's** act would inform higher management?	1	2	3	4	5	6	7
37	How likely is it that **you** would inform persons **outside** of the firm of **Tom's** act?	1	2	3	4	5	6	7
38	How likely is it that **other auditors** in the office inform persons outside of the firm of **Tom's** act?	1	2	3	4	5	6	7
39	How likely is it that you would perform **Tom's** act of shredding the papers?	1	2	3	4	5	6	7

NB: 2 = Moderately; 3 = Slightly; 4 = Neutral; 5 = Slightly; 6 = Moderately

Scales adapted from Park and Blenkinsopp (2009), Kaplan and Whitecotton (2001) and Gibson and Frakes (1997).

		Not at all						Very much
40	How much would you want to perform **Tom's** act of shredding the papers?	1	2	3	4	5	6	7
41	I would report **Tom's** act to the appropriate persons within the audit firm	1	2	3	4	5	6	7
42	I would use the reporting channels inside of the audit firm	1	2	3	4	5	6	7
43	I would let upper level of management know about **Tom's** act	1	2	3	4	5	6	7
44	I would tell my supervisor about **Tom's** act	1	2	3	4	5	6	7
45	I would report **Tom's** act to the appropriate authorities outside of the audit firm	1	2	3	4	5	6	7
46	I would use reporting channels outside of the audit firm	1	2	3	4	5	6	7
47	I would provide information to outside agencies	1	2	3	4	5	6	7
48	I would inform the public of **Tom's** act	1	2	3	4	5	6	7

NB: 2 = Moderately; 3 = Slightly; 4 = Neutral; 5 = Slightly; 6 = Moderately

Scales adapted from Park and Blenkinsopp (2009) and Gibson and Frakes (1997).

Read the following scenario carefully, and answer the questions below.
Scenario 2

You are Paul Smith, the Audit Senior. John Ellis, a partner in an audit firm, and you are both completing the December 31, 2008 audit of Simpson Stores, Inc (SSI), a privately owned company that operates a chain of retail clothing outlets. The owner of SSI, Bob Simpson, owns several businesses and is one of the firm's largest tax and auditing clients. Simpson is currently negotiating to sell SSI. A tentative sales price has been agreed upon, but is contingent upon the audit verification of the net realizable value of accounts receivable and inventory. SSI has total current assets of $5,000,000 and pretax income (before audit adjustments) of $500,000.

Near the end of the audit, you are aware that Ellis, the audit partner has a disagreement with Simpson regarding the adequacy of the allowance for doubtful accounts. Based on SSI's historical collection experience, the auditors' best estimate of the allowance is $300,000. However, Simpson contends that, due to an improving economy, the recorded allowance of $100,000 is adequate. Although there has been some improvement in economic conditions in SSI's market areas, Ellis feels it is unlikely to significantly impact the collectibility of their receivables. **You later learn that because Simpson is a valued client of the firm, Ellis, the partner, agreed to accept the recorded allowance of $100,000 and gave an unqualified (clean) audit opinion on the financial statements.** If the auditor was to give an unqualified opinion based on client's pressure even though the auditor has serious reservations regarding the client's aggressive accounting treatment (i.e collectibility of the accounts receivable), this would be in direct violation of IFAC's principles of objectivity and integrity. **(*Adapted from Shafer et al., 1999).*

Instructions: Please circle the number that best corresponds to your chosen response.

	Scales adapted: Moral intensity (Coram et al., 2008), seriousness, personal responsibility and personal cost (Schultz et al., 1993)	Very low						Very high
1	Please assess the performance of **Ellis'** act leading to an incorrect audit opinion (probability of effect to financial statement users).	1	2	3	4	5	6	7
2	What is the probability that **Ellis' act of overly accommodating the client's request for aggressive accounting treatment** will be discovered by higher management?	1	2	3	4	5	6	7
3	If the act of overly accommodating the client's request was discovered, what level of disciplinary action would an auditor face for committing the same act?	1	2	3	4	5	6	7
4	Please assess the seriousness (i.e the amount of social harm done) of **Ellis'** act of overly accommodating the client's request for aggressive accounting treatment.	1	2	3	4	5	6	7
5	Please assess the personal costs to you as an audit staff person (i.e trouble, risk, discomfort) of informing higher management of **Ellis'** act of overly accommodating the client's request for aggressive accounting treatment.	1	2	3	4	5	6	7
6	Please assess your personal responsibility (i.e. duty or obligation) for informing higher management of **Ellis'** act of overly accommodating the client request.	1	2	3	4	5	6	7

NB: 2 = Moderately; 3 = Slightly; 4 = Neutral; 5 = Slightly; 6 = Moderately

	Attitudes	Not very true						Very true
	How **true** do you think that the following statements are with regard to you reporting **Ellis'** action of overly accommodating the client's request in an audit firm?							
7	Blowing the whistle **on Ellis** would help prevent serious harm to the audit firm	1	2	3	4	5	6	7
8	Reporting the action **of Ellis** is helpful in controlling unethical behaviour	1	2	3	4	5	6	7
9	Whistle-blowing **on Ellis** enhances the public interest	1	2	3	4	5	6	7
10	Reporting **Ellis' action** in the workplace is a way for an employee to do his or her duty	1	2	3	4	5	6	7
11	Whistle-blowing **on Ellis** is the moral thing to do	1	2	3	4	5	6	7
	If you reported **Ellis'** action, how **important** do you think the following consequences would be to you?	Not very important						Very important
12	Prevention of harm to the audit firm	1	2	3	4	5	6	7
13	Control of unethical behaviour	1	2	3	4	5	6	7
14	Enhancement of public interest	1	2	3	4	5	6	7
15	Performing one's duty as an employee	1	2	3	4	5	6	7
16	Moral satisfaction on one's part	1	2	3	4	5	6	7
	Subjective norms							
	How **proud of you** do you think the following persons would be if you reported **Ellis'** action?	Not Very much						Very much
17	Members of one's family	1	2	3	4	5	6	7
18	Co-workers	1	2	3	4	5	6	7
19	Immediate supervisor	1	2	3	4	5	6	7
20	Friends	1	2	3	4	5	6	7
21	Neighbours	1	2	3	4	5	6	7
	How **much do you care** whether the following persons would approve or disapprove of your reporting of **Ellis'** action?	Very little						Very much
22	Members of one's family	1	2	3	4	5	6	7
23	Co-workers	1	2	3	4	5	6	7
24	Immediate supervisor	1	2	3	4	5	6	7
25	Friends	1	2	3	4	5	6	7
26	Neighbours	1	2	3	4	5	6	7

NB: 2 = Moderately; 3 = Slightly; 4 = Neutral; 5 = Slightly; 6 = Moderately

Scales adapted from Park and Blenkinsopp (2009).

	Perceived behavioural control							
	If you report **Ellis' action of overly accommodating client's request** in the audit firm, how likely do you think the following are?	**Not very likely**						**Very likely**
27	The audit firm will hinder/ignore my reporting every step of the way	1	2	3	4	5	6	7
28	The difficulties to be faced in the process of my reporting will be too great for me to endure	1	2	3	4	5	6	7
29	My reporting won't make any difference	1	2	3	4	5	6	7
30	I will be subjected to retaliation from the audit firm	1	2	3	4	5	6	7
	If you report Ellis' action, how important do you think the following are to you?	**Not very important**						**Very important**
31	The audit firm's hindering reporting (or ignoring it)	1	2	3	4	5	6	7
32	Difficulties to be faced in the process of reporting	1	2	3	4	5	6	7
33	No chance to correct wrongdoing	1	2	3	4	5	6	7
34	Retaliation by the audit firm	1	2	3	4	5	6	7
	Reporting intentions							
	With respect to **Ellis'** act of overly accommodating the client's request,	**Extremely unlikely**						**Extremely likely**
35	How likely is it that **you** would inform higher management of **Ellis'** act ?	1	2	3	4	5	6	7
36	How likely is it that **other auditors** in the office who have become aware of **Ellis'** act would inform higher management?	1	2	3	4	5	6	7
37	How likely is it that **you** would inform persons **outside** of the firm of **Ellis'** act?	1	2	3	4	5	6	7
38	How likely is it that **other auditors** in the office inform persons outside of the firm of **Ellis'** act?	1	2	3	4	5	6	7
39	How likely is it that you would perform **Ellis'** act of overly accommodating the client's request?	1	2	3	4	5	6	7

NB: 2 = Moderately; 3 = Slightly; 4 = Neutral; 5 = Slightly; 6 = Moderately

Scales adapted from Park and Blenkinsopp (2009), Kaplan and Whitecotton (2001) and Gibson and Frakes (1997).

		Not at all						Very much
40	How much would you want to perform **Ellis'** act ?	1	2	3	4	5	6	7
41	I would report **Ellis'** act to the appropriate persons within the audit firm	1	2	3	4	5	6	7
42	I would use the reporting channels inside of the audit firm	1	2	3	4	5	6	7
43	I would let upper level of management know about **Ellis'** act	1	2	3	4	5	6	7
44	I would tell my supervisor about **Ellis'** act	1	2	3	4	5	6	7
45	I would report **Ellis'** act to the appropriate authorities outside of the audit firm	1	2	3	4	5	6	7
46	I would use reporting channels outside of the audit firm	1	2	3	4	5	6	7
47	I would provide information to outside agencies	1	2	3	4	5	6	7
48	I would inform the public of **Ellis'** act	1	2	3	4	5	6	7

NB: 2 = Moderately; 3 = Slightly; 4 = Neutral; 5 = Slightly; 6 = Moderately

Scales adapted from Park and Blenkinsopp (2009) and Gibson and Frakes (1997).

	Instructions: Please answer the questions below by circling the number that best corresponds to your chosen response. *Social desirability scale (Paulhus, 1989) impression management*	Not true			Somewhat true			Very true
1.	I sometimes tell lies if I have to.	1	2	3	4	5	6	7
2.	I never cover up my mistakes.	1	2	3	4	5	6	7
3.	There have been occasions when I have taken advantage of someone	1	2	3	4	5	6	7
4.	I never swear.	1	2	3	4	5	6	7
5.	I sometimes try to get even rather than forgive and forget.	1	2	3	4	5	6	7
6.	I always obey laws, even if I'm unlikely to get caught	1	2	3	4	5	6	7
7.	I have said something bad about a friend behind his or her back.	1	2	3	4	5	6	7
8	When I hear people talking privately, I avoid listening	1	2	3	4	5	6	7
9.	I have received too much change from a salesperson without telling him or her	1	2	3	4	5	6	7
10.	I always declare everything at customs	1	2	3	4	5	6	7
11.	When I was young I sometimes stole things	1	2	3	4	5	6	7
12.	I have never dropped litter on the street	1	2	3	4	5	6	7
13.	I sometimes violate traffic or pedestrian laws.	1	2	3	4	5	6	7
14.	I never read sexy books or magazines.	1	2	3	4	5	6	7
15	I have done things that I don't tell other people about	1	2	3	4	5	6	7
16	I never take things that don't belong to me	1	2	3	4	5	6	7
17	I have taken sick-leave from work or school even though I wasn't really sick	1	2	3	4	5	6	7
18	I have never damaged a library book or store merchandise without reporting it.	1	2	3	4	5	6	7
19	I have some pretty awful habits.	1	2	3	4	5	6	7
20.	I don't gossip about other people's business	1	2	3	4	5	6	7

SECTION 5: DEMOGRAPHIC INFORMATION

1) Gender

Male	Female
❐	❐

2) What is your age? _____ years

3) Organizational position

Junior	Senior	Manager	Partner	Other
❐	❐	❐	❐	❐

   Other (please specify) _____

4) How many years were you employed in this organization? _____

5) Please indicate the highest level of education you completed? *(please tick appropriately)*

Primary	Secondary	Diploma	Bachelor's Degree	Master's Degree	PhD	Other
❐	❐	❐	❐	❐	❐	❐

   Other Qualifications (please specify)_____

6) Professional qualification (education) *(please tick appropriately)*

ACCA	ACA	CGA	CPA	CMA	Other
❐	❐	❐	❐	❐	❐

   Specify other_____

7) Professional work experience (number of years) _____

8) Number of months spent working in a current team _____

9) Team size: no of persons within the current team _____

Read the following scenario carefully, and answer the questions below.
Scenario 3: **Modern Appliances case**
You are the senior assigned to the audit of Modern Appliances. This is the first year you have been assigned to this audit engagement. The manager on the audit is Michael Jenkins. Michael has been on the Modern Appliances audit for the three previous years and is well liked by the client. Modern Appliances is a publicly held company that manufactures a complete line of commercial and residential water heaters. Your firm has conducted the audit for the past 4 years during which an adequate working relationship with Modern Appliances has been established. The current Financial Controller was leaving soon, having accepted a position to be Chief Executive Officer of a small appliance manufacturer. **While making inquiries with the Assistant Financial Controller, you were surprised to learn that the audit manager, Michael Jenkins, has been offered the position of financial controller for Modern Appliances. You are also told that he is still deciding whether to accept the position. Michael Jenkins has continued in his role as audit manager for Modern Appliances.** The concern is that being offered employment by the client may be viewed as impairing independence. In fact, an Ethics Ruling on this issue has stated that "the individual must remove himself or herself from the engagement until the employment offer is rejected or employment is no longer being sought, in order to prevent the appearance that integrity or objectivity has not been impaired."
Adapted from Curtis (2006, p.198-199).

Instructions: Please circle the number that best corresponds to your chosen response.

	Scales adapted: Moral intensity (Coram et al., 2008), seriousness, personal responsibility and personal cost (Schultz et al., 1993)	**Very low**						**Very high**
1	Please assess the performance of **Jenkins'** act leading to an incorrect audit opinion (probability of effect to financial statement users).	1	2	3	4	5	6	7
2	What is the probability that **Jenkins'** act of continuing to work on the engagement after receiving an employment offer, will be discovered by higher management?	1	2	3	4	5	6	7
3	If the act of continuing to work on the engagement after receiving an employment offer was discovered, what level of disciplinary action would an auditor face for committing the same act?	1	2	3	4	5	6	7
4	Please assess the seriousness (i.e the amount of social harm done) of **Jenkins'** act of continuing to work on the audit engagement after receiving an employment offer	1	2	3	4	5	6	7
5	Please assess the personal costs to you as an audit staff person (i.e. trouble, risk, discomfort) of informing higher management of **Jenkins'** employment offer	1	2	3	4	5	6	7
6	Please assess your personal responsibility (i.e. duty or obligation) for informing higher management of **Jenkins'** employment offer.	1	2	3	4	5	6	7

NB: 2 = Moderately; 3 = Slightly; 4 = Neutral; 5 = Slightly; 6 = Moderately

	Attitudes	Not very True						Very True
	How **true** do you think that the following statements are with regard to you reporting Jenkins' act of continuing to work on the engagement after receiving an employment offer, in an audit firm?							
7	Blowing the whistle **on Jenkins** would help prevent serious harm to the audit firm	1	2	3	4	5	6	7
8	Reporting **Jenkins'** action is helpful in controlling unethical behaviour	1	2	3	4	5	6	7
9	Whistle-blowing **on Jenkins** enhances the public interest	1	2	3	4	5	6	7
10	Reporting **Jenkins' action** in the workplace is a way for an employee to do his or her duty	1	2	3	4	5	6	7
11	Whistle-blowing **on Jenkins** is the moral thing to do	1	2	3	4	5	6	7
	If you reported **Jenkins'** action, how **important** do you think the following consequences would be to you?	Not very important						Very important
12	Prevention of harm to the audit firm	1	2	3	4	5	6	7
13	Control of unethical behaviour	1	2	3	4	5	6	7
14	Enhancement of public interest	1	2	3	4	5	6	7
15	Performing one's duty as an employee	1	2	3	4	5	6	7
16	Moral satisfaction on one's part	1	2	3	4	5	6	7
	Subjective norms							
	How **proud of you** do you think the following persons would be if you reported **Jenkins' action**?	Not very much						Very much
17	Members of one's family	1	2	3	4	5	6	7
18	Co-workers	1	2	3	4	5	6	7
19	Immediate supervisor	1	2	3	4	5	6	7
20	Friends	1	2	3	4	5	6	7
21	Neighbours	1	2	3	4	5	6	7
	How **much do you care** whether the following persons would approve or disapprove of your reporting of **Jenkins'** action?	Very little						Very much
22	Members of one's family	1	2	3	4	5	6	7
23	Co-workers	1	2	3	4	5	6	7
24	Immediate supervisor	1	2	3	4	5	6	7
25	Friends	1	2	3	4	5	6	7
26	Neighbours	1	2	3	4	5	6	7

NB: 2 = Moderately; 3 = Slightly; 4 = Neutral; 5 = Slightly; 6 = Moderately

Scales adapted from Park and Blenkinsopp (2009).

	Perceived behavioural control							
	If you report **Jenkins' action** in an audit firm, how likely do you think the following are?	**Not very likely**						**Very likely**
27	The audit firm will hinder/ignore my reporting every step of the way	1	2	3	4	5	6	7
28	The difficulties to be faced in the process of my reporting will be too great for me to endure	1	2	3	4	5	6	7
29	My reporting won't make any difference	1	2	3	4	5	6	7
30	I will be subjected to retaliation from the audit firm	1	2	3	4	5	6	7
	If you report **Jenkins'** action, how **important** do you think the following are to you?	**Not very important**						**Very important**
31	The audit firm's hindering reporting (or ignoring it)	1	2	3	4	5	6	7
32	Difficulties to be faced in the process of reporting	1	2	3	4	5	6	7
33	No chance to correct wrongdoing	1	2	3	4	5	6	7
34	Retaliation by the audit firm	1	2	3	4	5	6	7
	Reporting intentions							
	With respect to **Jenkins' act of continuing to work on the engagement**,	**Extremely unlikely**						**Extremely likely**
35	How likely is it that **you** would inform higher management of **Jenkins'** act ?	1	2	3	4	5	6	7
36	How likely is it that **other auditors** in the office who have become aware of **Jenkins'** act would inform higher management?	1	2	3	4	5	6	7
37	How likely is it that **you** would inform persons **outside** of the firm of **Jenkins'** act?	1	2	3	4	5	6	7
38	How likely is it that **other auditors** in the office inform persons outside of the firm of **Jenkins'** act?	1	2	3	4	5	6	7
39	How likely is it that you would perform **Jenkins'** act of continuing to work on the audit engagement?	1	2	3	4	5	6	7

NB: 2 = Moderately; 3 = Slightly; 4 = Neutral; 5 = Slightly; 6 = Moderately

Scales adapted from Park and Blenkinsopp (2009), Kaplan and Whitecotton (2001) and Gibson and Frakes (1997).

		Not at all						Very much
40	How much would you want to act as **Jenkins** in continuing to work on the audit engagement?	1	2	3	4	5	6	7
41	I would report **Jenkins**' act to the appropriate persons within the audit firm	1	2	3	4	5	6	7
42	I would use the reporting channels inside of the audit firm	1	2	3	4	5	6	7
43	I would let upper level of management know about **Jenkins'** act	1	2	3	4	5	6	7
44	I would tell my supervisor about **Jenkins'** act	1	2	3	4	5	6	7
45	I would report **Jenkins'** act to the appropriate authorities outside of the audit firm	1	2	3	4	5	6	7
46	I would use reporting channels outside of the audit firm	1	2	3	4	5	6	7
47	I would provide information to outside agencies	1	2	3	4	5	6	7
48	I would inform the public of **Jenkins'** act	1	2	3	4	5	6	7

NB: 2 = Moderately; 3 = Slightly; 4 = Neutral; 5 = Slightly; 6 = Moderately

Scales adapted from Park and Blenkinsopp (2009) and Gibson and Frakes (1997).

Thank you for completing this questionnaire.

Thank you also for participating in this project.

APPENDIX D

Whistle-blowing Interview Schedule

Demographics

1. Gender: Male   ☐   Female   ☐……………

2. Age: Under 20 yrs ☐   20-29 yrs ☐   30-39 yrs ☐   40-49 yrs ☐   50-59 yrs ☐ Over 60 yrs ☐

3. Years of professional experience…………….

4. Qualifications ………………..

5. Position………………………..

General

6. In your words, what do you know about "whistle-blowing"?

7. To what extent, do you think that whistle-blowing is important to an auditor? Why? Assess the seriousness of committing questionable acts?

8. In your opinion, how is whistle-blowing perceived (as a hero or traitor) by the profession? And outside the profession? Why?

Specific

9.   In general, to what extent are you willing to report questionable acts?

10.   In your view, which one is more important for reporting questionable acts? Approval from others? Or self approval?   Why? Which referent group is important to you? (supervisor, co-workers, neighbours, friends and family)

11a. In your opinion, how easy or difficult would it be for you to report a questionable act (e.g. whistle-blowing on a colleague who signed off a clean audit report on misleading financial statements)?

11b. Do you believe that you have control over the behaviour of reporting questionable acts? Any obstacles or opportunities?

12. In your opinion, can you tell me what is the link between being independent and able to report questionable acts? Why?

13. In your view, do you believe that auditors have a personal responsibility towards others (e.g. the audit firm, profession, shareholders, society) to report questionable acts? Which one is more important? Why?

14a. In your opinion, to what extent do you believe that your organization would support you if you decided to report unethical practices or wrongdoing? (i.e. superiors, etc.) (Please give reasons).

14b   What mechanisms do your organization have for supporting ethical behaviour or whistle-blowing (reporting questionable acts)?

14c.   What do you know about your organization's code of ethics? How will it affect your ability to report questionable acts?

15a.   In your opinion, to what extent do you think that team mates have on your intentions to report questionable acts?

15b.   How important is the influence of cohesiveness and team norms? Why?

16.   In your opinion, to what extent is material harm in influencing you to report questionable acts?

17.   In your opinion, if you had observed wrongdoing in your organization, what are the main factors that would motivate you to report it to the appropriate person(s)?

18.   In your opinion, if you had observed wrongdoing in your organization, what are the main factors that would discourage you from reporting it to the appropriate person(s)? What are the personal costs (i.e. trouble, risk, discomfort) to you?

19.   If you had observed wrongdoing, which channel of reporting would you take [i.e. internal channels (senior management, ethics committee) and/or external channels (media, regulatory bodies)]?) (Anonymous reporting (hotline)? (Please give reasons for your choice of channel) Why?

20.   Have you ever observed and/or reported wrongdoing? Explain what happened.

21.   What do you think are the positive and negative consequences of whistle-blowing in your organization? You? The organization? Profession? To Society?

21a.   To you (Positive consequences)

21b.   To you (Negative consequences)

21c.   To the audit firm (Positive consequences)

21d.   To the audit firm (Negative consequences)

21e.   To the profession (Positive consequences)

21f.   To the profession (Negative consequences)

21g.   To the society (Positive consequences)

21h.   To the society (Negative consequences)

22.   What other observations can you make about whistle-blowing within the audit profession?

23.   What recommendations can you make about encouraging whistle-blowing?

Thank you

APPENDIX E

Informed Consent Form

I volunteer and consent to participate in the current study captioned "Towards a conceptual model of whistle-blowing intentions among auditors."

This study is being conducted by Philmore Alleyne, who is a doctoral (PhD) candidate in Accounting at the School of Management, University of Bradford, Yorkshire, United Kingdom and a Lecturer in Accounting in the Department of Management Studies, University of the West Indies, Cave Hill Campus, Barbados.

I understand that I will be asked to read a series of hypothetical auditing scenarios and answer questions related to these scenarios. I also understand that I will be required to complete a survey questionnaire, which has a time commitment of approximately 30 minutes. My participation will be totally voluntary and I can decide to withdraw at anytime. My responses to the questions will be held in the strictest confidence. **My name or the name of my organization will not be disclosed in this study's results.** In the event that I experience any anxiety when responding to the questionnaire, I understand that I can contact Philmore Alleyne about any discomfort that I may be experiencing.

I also understand that there are several benefits to be gained from participating in this research. Firstly, my knowledge about whistle-blowing may be increased. Secondly, I will be providing auditing ethics researchers with important insights into whistle-blowing decisions and their development. This research can help them in better understanding the function of auditing firms and their members in relation to situations involving whistle-blowing decisions.

I also understand that I may withdraw my consent to participate in this research without any prejudice. I also have the right to inquire about the nature of the research. All questions about the study have been satisfactorily answered.

I am aware that I can get in touch with Philmore Alleyne, Department of Management Studies, University of the West Indies, Cave Hill Campus, (246) 417-4295 or (246) 256-6695 for answers to any questions about this research.

I fully understand the contents of this consent form.

Participant………………………………   Date…………………