

# Ethical team leadership and trainee auditors' likelihood of reporting client's irregularities

Ethical team  
leadership

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## Abstract

**Purpose** – This paper aims to investigate the impacts of audit engagement team's ethical leadership, trainee auditors' reporting intent and other selected factors on their likelihood of reporting client's irregularities.

**Design/methodology/approach** – The present investigation is based on 150 effective questionnaire responses provided by a group of trainee auditors working for certified public accounting (CPA) firms. The questionnaire items relating to trainee auditors' likelihood of reporting client's irregularities are based on Crawford and Weirich's (2011) classification of common forms of fraudulent financial reporting. The authors' measurement of the audit engagement team leaders' ethicality is based on the ethical leadership scale developed in Newstrom and Ruch (1975) and Kantor and Weisberg (2002). Regression models are used to testify the authors' hypotheses on the correlations of the trainee auditors' likelihood of reporting client's irregularities with audit engagement team's ethical leadership, trainee auditor' reporting intents and other selected factors.

**Findings** – The major conclusion of this study is that there is a significantly positive correlation between trainee auditors' likelihood of reporting client's irregularities and their perception of audit engagement team leader's ethicality. This paper also points out that trainee auditors' higher evaluation of stable firm-client relationship reduces their likelihood of reporting client's irregularities, whereas their concerns with future career development increase the likelihood of reporting. In addition, this paper documents the fact that male trainee auditors more easily perceive the ethicality of their team leader than females, and that trainee auditors with less academic achievements (lower GPA) tend to perceive more easily the ethicality of their team leader than those with better academic achievements (higher GPA).

**Research limitations/implications** – Two business ethics variables constructed and used in this study, i.e. trainee auditors' likelihood of reporting client's irregularities and engagement team leader's ethicality, can be applied in future research on whistleblowing in the audit profession.

**Practical implications** – Practical implications can also be drawn from the findings to enhance the ethical management at both engagement and firm levels.

**Originality/value** – This paper contributes to the audit research literature by providing evidence on the significant positive impacts of team leader's ethicality on the entry-level audit professional's likelihood of reporting client's irregularities.

**Keywords** Whistleblowing, Ethical leadership, Trainee auditors, Engagement team, Irregularities

**Paper type** Research paper



## Introduction

Whistleblowing in organizations has received considerable attention in the literature of organizational behaviors and business ethics. Whistleblowing is viewed in business studies as a kind of pro-social behavior that is related to both the principles for individual moral reasoning (Miceli and Near, 1984; Dworkin and Near, 1987) and the statutes for organizational behaviors (Dozier and Miceli, 1985; Dworkin and Near, 1987, 1997). It has been

widely accepted that the important business functions of whistleblowing lie in deterring and detecting corporate wrongdoing and financial misreporting by fortifying the instituted legislation of this pro-social behavior both in and out of organizations (Schmidt, 2005).

In the preceding decade, following the collapse of Arthur Andersen in the Enron debacle, whistleblowing within audit firms has taken on greater importance. Auditing is a special profession. Given the profession's requirements to be confidential and independent and to act in the public interest, there is a worldwide demand/need for a framework that addresses specifically the audit profession and auditors' whistleblowing on financial frauds (Louwers *et al.*, 1997).

China is the largest emerging market and economy in the world, and the development of the young auditing profession in this country can be practically instructive to other emerging markets. Based on a questionnaire survey on the six-month work placement of trainee auditors in Chinese certified public accounting (CPA) firms, this study makes contributions to the existing audit research literature by adding two business ethics variables, i.e. trainee auditors' likelihood of reporting client's irregularities and engagement team leader's ethicality, to the theoretical framework for the studies of whistleblowing in the audit profession. It also aims to improve both the quality of ethical management in CPA firms and the practice-related effectiveness of work-integrated education for accounting majors.

This paper focuses on testing the correlation between trainee auditors' likelihood of reporting client's irregularities and engagement teams' ethical leadership. Besides these two key variables, this study also includes as explanatory variables into our testing models, the organizational factors such as firm size and team size and the individual factors such as trainee auditor's reporting intent, gender and prior academic achievements.

This paper documents the evidence that there is a significantly positive correlation between trainee auditors' perception of their engagement team leader's ethicality and their likelihood of reporting client's irregularities. Another conclusion is that female trainee auditors are less likely to perceive their engagement team leaders as ethical, although females, on average, are more likely to report the client's irregularities to the team leader than males in identical situations. The reporting intent concerning the CPA firm's relationship with its clients and the future job opportunity plays an important role in determining trainee auditors' likelihood of reporting client's irregularities. Among those control variables under investigation, team size is negatively correlated to the dependent variable, whereas the others are observed to exercise no significant influence on trainee auditors' likelihood of reporting. This paper contributes to the audit research literature by providing evidence on the significant positive impacts of team leader's ethicality on the entry-level audit professional's likelihood of reporting client's irregularities.

Following this introductory section, the rest of the paper proceeds as follows. The second section introduces a brief history of Chinese audit profession development as the institutional background for our survey design. The third section provides a review on previous literature on the topics of whistleblowing and ethical leadership, succeeded by a presentation of our research hypotheses. The fourth section introduces the research methodology adopted in this study, including survey design, definition and measurement of variables and regression models. The fifth section displays the empirical results through descriptive statistics, correlation matrix and regression analysis. The sixth section presents the summaries and conclusions and states the practical limitations of this study and some suggestions for potential further research.

### Recent developments of auditing profession in China

Fast economic development in emerging markets requires safe-guarding by the strong auditing profession. A well-functioning audit profession is one of the most important supervisory and monitoring mechanisms in securing sustainable economic development in growing countries like China. Entering the auditing profession is a critical decision for young accounting graduates from universities in many emerging markets. This ever-reputational profession now is becoming riskier, as it has been associated with financial scandals at the beginning of the new millennium.

Auditors are widely recognized as whistleblowers, particularly in business financial scandals. Whistleblowing is a critical mechanism for a business to control illegal organizational behavior, and this mechanism includes measures and policies for encouraging whistleblowing and dealing with whistleblowers (Near and Miceli, 1996).

Auditing plays an important role in the sound functioning of capital markets (Maroun and Gowar, 2013). Auditors in nearly all countries shall provide their professional opinions on the financial statements of their corporate clients, and they are obligated to report the financial and accounting irregularities to the governmental audit agencies in some countries like South Africa (Maroun and Gowar, 2013).

Ever since the entrance into the World Trade Organization in 2001, the Chinese surging economy created a huge demand for public accounting practitioners. To meet the demand, the central government of China launched a national Accounting Professionals Cultivating Program in 2010 aiming at increasing the number of accounting practitioners, especially that of certified public accountants. Meanwhile, Chinese universities have established their accounting departments and have sought for training high-quality accounting talent with the work-integrative pedagogic methodologies introduced from American and European accounting education (Liu, 2012).

Due to the current overly demand for public accounting services in China, it is quite understandable that in China, CPA firms tend to hire extra workforce, i.e. trainee auditors, to deal with the massive amount of audit projects during the peak seasons. Trainee auditors, usually accounting-majored college students, therefore account for a substantive proportion of the workforce during the peak seasons. However, their lack of professional experience and technical skills may disqualify them from the jobs that they undertake when it comes to real-life ethical problems. As a result, it is possible that their workmates, especially their mentors who directly lead them in their daily work, would become a reference for them to establish their own professional ethics. That is, by observing what their project team leaders or mentors do at work, they may gradually develop their own sense of professional ethics and adopt a comparable ethical standard through “social learning”. Furthermore, when working with the team leaders with different levels of ethicality, trainee auditors may vary their own ethical standard according to their perception of their leaders’ ethicality. The disparity between their professional experience and the significance of their job makes it necessary for the Chinese CPA firms to make efforts in managing the workforce of trainee auditors.

In the promising financial environment, many corporations in China seek for opportunities to expand by listing their stocks in the capital market. However, in the wake of the exposure of financial fraud scandals in recent years, the issue of accounting ethics is brought to the public attention again. In light of the worrying current situation in the audit industry in China, we thus hope to make our contributions to the development of the audit industry through academic research.

In light of the current practical situation of the public accounting profession in China, we conduct this study with an attempt to investigate the relationship between trainee auditors’

likelihood of whistleblowing and their perception of their team leader's ethicality. Two research questions are raised:

- RQ1.* Is trainee auditors' likelihood of reporting to the team leader the identified client's irregularities related to their perception of the engagement team leader's ethicality?
- RQ2.* Is trainee auditors' likelihood of reporting the identified client's irregularities related to their reporting intent?

Additionally, this paper raises a further question on how trainee auditors' perception of the engagement team leader's ethicality is influenced by organizational factors such as firm size and team size and individual factors such as trainee auditor's gender and academic achievements.

### Literature review and development of research hypotheses

#### *Whistleblowing on organizational wrongdoing*

Different research perspectives lead to different approaches to defining whistleblowing. In the earlier literature, researchers define whistleblowing 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 (Latane and Darley, 1970; Miceli and Near, 1985; Izraeli and Jaffe, 1998; Arnold and Ponemon, 1991). Latane and Darley (1970) describe the five steps of ethical reasoning and decision-making in the course of whistleblowing, which can be briefly summarized as perception, judgment, obligations, decisions and actions relating to the whistleblowing behavior. Dozier and Miceli (1985) regard the whistleblowing in organizations as a pro-social behavior that benefits other people even though self-interests and self-protections are sometimes primary concerns in reporting organizational wrongdoings. Likierman (1989) points out the socio-political implications of whistleblowing, as this act complies with social ethic rules and principles. In recent papers on organizational behaviors and business ethics, researchers tend to broadly characterize whistleblowing as the reporting of an actual or suspected wrongdoing (Brennan and Kelly, 2007; Deborah *et al.*, 2010; Kennett *et al.*, 2011; Alleyne *et al.*, 2013).

Despite the differences in defining whistleblowing, the majority of existing organizational behavior and business ethics literature have indicated the significant relationships between whistleblowing and organizational features and/or personal intents. For a few examples, the associations of whistleblowing with the workplace ethical environment (Miceli and Near, 1985; Near and Miceli, 1996; Koster, 2010), loyalty culture (Koster, 2010; Waytz *et al.*, 2013), justice of organizational procedures (Mckendell *et al.*, 2002; Waytz *et al.*, 2013) and internal control systems (Patel, 2003; Schmidt, 2005) are investigated. From those organizational studies on whistleblowing, a general conclusion can be arrived at that there is a significantly positive correlation between an ethical work environment and the propensity to blow the whistle. For more examples, whistleblowing is significantly related to personal characteristics such as *locus* of control (Chiu and Erdener, 2003; Izraeli and Jaffe, 1998), level of moral reasoning (Rogers and Smith 2001; Arnold and Ponemon, 1991), age and gender (Mesmer-Magnus and Viswesvaran, 2005) and personal cultural background (Patel, 2003). From the existing personal intents-based literature, the widely accepted conclusion relating whistleblowing to personal intents is that individuals are more likely to blow the whistle when they have an internal *locus* of control and a higher level of moral reasoning, are older and come from individualistic cultures.

### *Ethical leadership*

In the organizational studies before the worldwide shocks caused by the notorious business scandals such as Enron, WorldCom and Parmalat, a leader's ethicality was considered a crucial element of different forms of good leadership defined by researchers. In the earlier leadership literature, the ethical dimension of leadership was related to definitions of transformational leadership (Bass, 1985; Bass and Avolio, 2000), charismatic leadership (Conger and Kanungo, 1988), servant leadership (Bass and Steidlmeier, 1999; Page and Wong, 2000) and socialized and personalized charismatic leadership (Howell and Avolio, 1992). In all these definitions, ethicality was nominated as one of the most virtuous dimension integrated in good leadership.

With the outburst of Enron and other several business scandals, increasingly attention has been paid to the role of leadership in shaping ethical conduct, and researchers began to consider ethical leadership as a separate concept rather a component of other leadership theories (Brown *et al.*, 2005). Treviño and Brown (2004) argued that an ethical leader perceived by followers needs to be characterized as a moral person and a moral manager who not only exemplifies the good characters, honesty and trustworthiness in personal life, but also directs others in ethical dimensions by keeping accountability, setting ethical standards and communicating ethical messages. By the definition given in Treviño and Brown (2004) and Brown *et al.* (2005), ethical leadership can be divided into three building blocks: personal actions, interpersonal relationship and promotion of ethical conduct. Many following research works in ethical leadership have adopted this definition in their investigation of the leadership behaviors and leader-follower relationships. However, the most widely accepted approach to empirically elaborating on the roles of leadership in organizations is actually a combination of this conceptualization of ethical leadership with the psychological and moral scales proposed by Newstrom and Ruch (1975) and Kantor and Weisberg (2002), in which a multiple-itemed questionnaire was used as a scale to measure employees' perception of their leaders' ethical beliefs.

Following these psychological and morality approaches to good leadership in organizations, several recent studies on business ethics attempt to investigate people's perception of others' ethicality, especially the employees' perception of their leader's ethicality. These approaches are based on the assumption that people tend to compare their own ethical behaviors with those of comparable others and modify their own ethical standard according to their perception of others' ethicality. For example, Seifert *et al.* (2010) recognize whistleblowing as the pro-social action and suggest that organizational leaders can positively impact this behavior within the organization by incorporating organizational justice in its whistleblowing policies and procedures. For another example, O'Fallon and Butterfield (2011) find out significant influence of unethical peer behavior on observers' unethical behavior from a social cognitive perspective and found that business students' unethical behavior is influenced by social learning, social identity and social comparison processes. In light of those previous studies, we attempt to investigate the team leader's ethicality in the audit profession, which plays an important part in the young entry-level professional's perception of the workplace ethicality and ethical leadership, as the team leader always serves as a reference for the follower's own ethical standards.

### *Auditors' whistleblowing and research hypotheses development*

There has been a limited number of audit literature on auditors' whistleblowing. Different reasons may explain this lack of focus on whistleblowing in audit research. For instance, one concern specific to the auditor's whistleblowing decision is the balance between principles of integrity and confidentiality in the audit profession. However, a general review of the

existing auditors' whistleblowing research supports our conjecture that in the audit profession, there are significant relationships between the auditor's whistleblowing decision and CPA firm features and/or auditor's personal intents.

Some recent audit research literature has uncovered the organizational factors influencing auditor's whistleblowing. Brennan and Kelly (2007) investigate the impacts of organizational and situational factors on trainee auditors' willingness to blow the whistle in the Irish auditing context. They conclude that formal organizational structures in the audit firm for reporting wrongdoing offer more courage to trainee auditors to blow the whistle by challenging the audit partner's inappropriate judgment during the audit; however, their tests indicate no significant impacts of legislative protection. Seifert *et al.* (2010) find out that the higher levels of organizational justice with fortified whistleblowing policies and mechanisms increase the likelihood of the organizational accountant internally reporting financial statement fraud. Kennettet *et al.* (2011) conclude that their whistleblowing intent is significantly influenced by workplace relationships, personal losses and social effects of whistleblowing behavior. There are several studies which prove that public accountants' behaviors are significantly affected by their team leader's ethicality. Wells and Spinks (1996) point out that ethics should be communicated from top to down, which means the senior level's attitudes toward ethics can influence ethics in organizational operations and the behavior of employees. Tanner *et al.* (2010) found that the ethical behaviors of leaders have impacted on subordinates' job satisfactions and work outcomes in CPA firms. Fan *et al.* (2012) investigate Chinese auditors' perception about their managers' ethical behavior and about their firms' coping mechanism of identified forms of unethical practice, and find that Chinese auditors are more ethical when the managers play a more moral role and organizations' punishment systems are strict. It is a conventional way of CPA firms to allot different project teams to different team leaders considering their professional competence, management skill and ethical quality. In audit practices, the project team leader's ethicality represents the organizational ethical culture or climate; thus, I conjecture that team leader's ethical level perceived by trainee auditors is positively correlated to their likelihood of reporting to the team leader the identified client's irregularities (H1):

H1. Trainee auditors' perception of team leader's ethicality is positively correlated with their reporting to the team leader the identified client's irregularities.

Other research works have investigated the associations between whistleblowing and the auditor's individual intents. Earlier management literature concludes that fear of retaliations is a common consequence for whistleblowing and a major factor reducing the likelihood of whistleblowing (Miceli and Near, 1984; Ponemon, 1994). Gunsalus (1998) proves that most people decide against whistleblowing on organizational wrongdoing for fear of losing jobs or negative impacts on evaluation of their workplace performance. The audit profession is different from other professions in that auditors can easily indicate their client's financial frauds because of their prestige in accessing the client's financial information. Kaplan (1995) finds out that some of the auditors' reporting intentions significantly influence their discovery of procedures prematurely signed-off, whereas others do not. Rogers and Smith (2001) find out that people at different stages of individual moral development demonstrate different levels of whistleblowing intent. Schmidt (2005) find out that young unexperienced auditors do not always go for whistleblowing at the first sight of the client's financial frauds because they usually consider job opportunity, workplace relationships and future promotions prior to making the whistleblowing decision. Kennettet *et al.* (2011) conducted a case questionnaire survey of 81 accounting major students regarding their likelihood of blowing the whistle and reveal that the approval of peers to blow the whistle, personal

financial costs of blowing the whistle and societal benefits of blowing the whistle are statistically significant variables that influence the auditor's whistleblowing decision. From the existing literature, we observe that there are some important and conflicting influences of individual reporting intents in the whistleblowing decision both in general business and in the audit profession. Considering the focus of this study on the whistleblowing decision by the trainee auditors in CPA firms, this paper proposes three specific individual intents, i.e. personal career development, workplace atmosphere and firm–client relationship. Thus, the second research hypothesis is stated as follows:

- H2.* Trainee auditors' individual reporting intents are significantly correlated with their likelihood of reporting to the team leader the identified client's irregularities.

#### *Control variables*

Some findings in audit literature resemble those resulted from the organization studies. While we focus on the relationship between whistleblowing and ethical leadership in firms and auditor's individual reporting intents, we refer to prior studies to include some important organizational and personal factors into our empirical investigation.

On the one hand, bigger firms normally have access to more human resources, structural and technical advantages, professional experiences and expertise than smaller ones (Pierce and Sweeney, 2004). Moreover, bigger firms after mergers and acquisitions have accumulated their advantages in institutional policies and practice management (Bowen *et al.*, 2010). Therefore, we include firm size and team size as control variables. On the other hand, existing literature includes personal factors such as gender, age, ethical character and personal experiences that influence the whistleblowing decision. Patel (2003) documents positive correlations of the likelihood of whistleblowing to employee's educational level and awareness of individualism. Brennan and Kelly (2007) also prove that senior auditors with more working experiences are more likely to blow the whistle on the client's financial frauds than young unexperienced auditors. Mesmer-Magnus and Viswesvaran (2005) document a significantly positive correlation between age and whistleblowing, and the fact that female employees are more likely to blow the whistle on corporate wrongdoings than males. Brennan and Kelly (2007) conclude that there are weak and conflicting influences of individual demographic factors such as gender, age, experience and seniority. In conclusion, this study includes firm size, team size, gender and academic performance (GPA) in the regression model as control variables.

#### *Summary of variables in this study*

Table I presents a list of variables in this study with their explanations and measurements. Variable WHISTLEBLOW is the dependent variable, which is to be explained by both proxies for organizational determinants such as ETHICALITY, FIRMSIZE and TEAMSIZ, and proxies for individual factors INTENT, GENDER and GPA (Table I).

### **Research methodology**

#### *Survey design and pilot study*

The measurements included in our survey questionnaires are adapted from the existing literature on whistleblowing and ethical leadership. As financial statement frauds are the most frequently alerted malpractice in the audit profession, a better understanding of the different types of frauds can provide a holistic picture of whistleblowing. Therefore, our questionnaire items relating to trainee auditors' likelihood of reporting client's irregularities are based on Crawford and Weirich's (2011) classification of fraudulent financial information by common forms. Our measurement of team leader's ethicality is based on the ethical

**Table I.**  
Summary of studied  
variables

Variables	Definition	Measurement
<i>WHISTLEBLOW</i>	Likelihood of reporting client's irregularities during the audit project surveyed	It is measured by the average score of the six questions listed in Table I
<i>ETHICALITY</i>	Ethicality of audit team leader perceived by trainee auditors	It is measured by the average score of the 15 questions listed in Table II. The higher the score is, the more ethical the team leader is in the intern's perception
<i>INTENT</i>	Trainee auditor's intent of reporting client's irregularities	It is measured by a scale designed for this study. Specific intents are considered independently
<i>FIRMSIZE</i>	It refers to the size of the firm in which the subject worked as an intern	This variable is valued at 1 when the firm is one of the international Big Four; 2 when the firm is a national Big Ten; 3 when the firm is a local one
<i>TEAMSIZE</i>	It measures the regular size of the team in which the subject worked	The average number of colleagues on the different engagement teams
<i>GENDER</i>	Gender of the audit intern	It is a dummy variable. It is 0 when the subject is a male, 1 when female
<i>GPA</i>	It indicates the intern's cumulative academic achievements (grade point average in college, which is measured on a five-point scale)	The corresponding relationship between the actual GPA and the value of the variable GPA can be listed as follows: 1 stands for 4.0-5.0, 2 for 3.5-3.99, 3 for 3.0-3.49, 4 for 2.5-2.99, 5 for 2.0-2.49, 6 for 1.99 or less

leadership scale developed in Newstrom and Ruch (1975) and Kantor and Weisberg (2002), which contains 17 questionnaire items categorized in five dimensions.

To guarantee the truthful presentation of trainee auditors' perceptions of the measured variables in this study, we administer the whole survey with anonymity, with an introductory section stating the research purposes of this questionnaire.

A pilot study was conducted among 30 trainee auditors from the population of target survey respondents before the finalized version of our questionnaire to ensure the research validity of each questionnaire item and the entire questionnaire. This pilot study also helped identify the potential ambiguous statements and alternatives. As a result, two unclear items (i.e. "padding an expense account up to 10 per cent", and "padding an expense account more than 10 per cent") were deleted from the ethicality scale in the questionnaire due to confusion caused to the respondents, and the scale retains its proper validity (Cronbach  $\alpha = 0.971$ , Table III).

#### *Description of subjects*

A survey was conducted on 205 trainee auditors who had just finished their six-month work placement with three of the Big-Fours and 14 well-recognized local CPA firms in South China. All of the trainee auditors in our survey are junior accounting majors. They were randomly assigned to the 17 CPA firms with whom the accounting department had established close relationships and had signed bilateral cooperation agreements regarding work placement, exchange of expertise, training programs and future job recruitments (detailed arrangements are available to interested readers from the corresponding author). During their work placement, the trainee auditors were required to follow the guidance of the CPAs or certified taxation consultants from the host firms in practicing the accounting, auditing and taxation services provided to the firms' clients. All the work placements under investigation were scheduled within the peak times from around the year-end to late April, when nearly all CPA firms were busy with statutory audits and taxation services for their



clients. The uniform requirement on the listed companies to issue their annual reports and auditor reports within the first quarter in China was noted in scheduling the work placement.

Upon completion of work placement, all the trainee auditors were to be evaluated and graded by administrative staff of both the university and the CPA firms. The survey questions were distributed among the target respondents before May Day. The trainee auditors were invited to complete the questionnaire anonymously, and they were told that their answers would not be counted as any part of the grading results. They handed in the questionnaires shortly after the brief school break. The questionnaire used in this survey was written in Chinese and used a 1-7 Likert scale (the questionnaire is available to interested readers from the author).

We exercised a strict review of all the 205 responses, resulting in a research sample of 150 effective answers, which accounts for about 73 per cent of the target population.

### *Measurement scales*

*Measurement scale for trainee auditors' likelihood of reporting client's irregularities.* Auditors are required by their professional standards to exercise their due diligence in financial statement audits, planning and practicing appropriate audit procedures to detect the trails of client's potential financial frauds. Crawford and Weirich (2011) developed a measurement scale for auditors' likelihood of reporting client's financial frauds on the basis of their classification of financial frauds into six categories, which are:

- (1) improper revenue recognition;
- (2) overstatement of inventory;
- (3) improper deferral of costs;
- (4) failure to record liabilities;
- (5) "Cookie Jar" accounting; and
- (6) inadequate disclosure in footnotes or MD&A.

We follow this classification to measure the whistleblowing behavior, but we customize each section by adding specific working details to the broad definition (Brennan and Kelly, 2007). For instance, compared to mischaracterization of transaction, premature revenue recognition is easier to identify by vouching, an essential part of an audit intern's job. In this case, we ask respondents about their tendency to blow the whistle when discovering premature revenue recognition. This treatment included in our adapted measurement scale produces an appropriate measurement validity, with its Cronbach  $\alpha$  value reaching 0.963 (see Table II for the detailed questionnaire items and summary of the measurement scale).

Based on the measurement scale for trainee auditors' likelihood of reporting to the team leader the identified client's irregularities, we recognize their pro-social act of whistleblowing defined in Miceli and Near (1984), and denote this variable by the name of WHISTLEBLOW in our empirical tests.

*Measurement scale for trainee auditors' perception of team leader's ethicality.* An original 17-itemed measurement scale for measuring followers' perception of their leader's ethicality in general management practice was designed by Newstrom and Ruch (1975). Kantor and Weisberg (2002) used this 17-item questionnaire in their study as a scale to measure employees' perception of their managers' ethical beliefs. Our study extends this measurement into the investigation of the trainee auditors' perception of their team leader's ethicality using a questionnaire revised on the basis of the 17-item questionnaire. Using a seven-point Likert scale, an average of 4 indicates the respondents are neutral on a question, whereas the respondents agree more strongly when a mean is closer to 7, and the respondents

disagree more strongly when a mean is closer to 1. To minimize the possibility of confusing the investigated subjects as a result of our pilot study, we have decided to delete two of the questions in the 17-item questionnaire, as explained in the first part of the fourth section. This measurement scale produces a Cronbach  $\alpha$  value of 0.971, which proves a good validity of our adapted scale (Table III).

*Measurement scale for the trainee auditors' reporting intents.* Jubb (2000) explains the whistleblower's considerations of the consequences following the whistleblowing action, concluding that concerns with the different forms of retaliation from fraud perpetrators rank as the riskiest factor in deciding whether to blow the whistle. Other papers (Seifert *et al.*, 2010; Waytz *et al.*, 2013) conclude that maintenance of friendly workplace relationships for personal career development also acts as an important role in the decision of whistleblowing. We include ten factors adapted from existing literature into our measurement scale for the trainee auditors' intent of reporting client's irregularities (Table IV). The Cronbach  $\alpha$  value for the scale inferred out of our survey is 0.837, which proves a reliable measurement validity for our measurement of the trainee auditors' fraud reporting intent.

As it was identified in our pilot study administered among 30 trainee auditors, the significant factors out of those ten questionnaire items relating to the trainee auditors'

**Table II.**  
Summary of scale for likelihood of reporting client's irregularities

Questionnaire items	Minimum	Maximum	Mean	SD
Finding out revenue from sales is recognized without invoice	1.00	7.00	5.40	1.711
Finding out overstated inventory quantities during stocktaking	1.00	7.00	5.44	1.712
Finding out improper deferral of costs when conducting cut-off test	1.00	7.00	5.45	1.693
Finding out failure to record liabilities	1.00	7.00	5.57	1.716
Finding out "Cookie Jar" accounting	1.00	7.00	5.46	1.685
Finding out inadequate disclosure in footnotes or MD&A	1.00	7.00	5.33	1.763
Total average of questions			5.44	1.570

**Notes:** Scale's Cronbach alpha = 0.963; approx. chi-square = 8.484, df = 149;  $p = 0.132$

**Table III.**  
Summary of scale for team leader's ethicality perceived by trainee auditors

Questionnaire items	Minimum	Maximum	Mean	SD
1. Using company services for personal use	1.00	7.00	2.27	1.299
2. Giving gifts/favors for preferential treatment	1.00	7.00	1.74	1.045
3. Taking longer than necessary to do a job	1.00	7.00	1.91	1.258
4. Divulging confidential information	1.00	7.00	1.61	1.054
5. Doing personal business on company time	1.00	7.00	2.68	1.521
6. Concealing one's error	1.00	7.00	2.04	1.446
7. Passing blame for errors to an innocent co-worker	1.00	7.00	1.97	1.532
8. Claiming credit for someone else's work	1.00	7.00	1.73	1.208
9. Falsify time/quality/quantity reports	1.00	7.00	1.75	1.175
10. Calling in sick to take a day off	1.00	7.00	1.64	1.233
11. Authorizing a subordinate to violate company rules	1.00	7.00	1.72	1.011
12. Pilfering company materials and supplier	1.00	7.00	1.55	1.059
13. Accepting gifts/favors for preferential treatment	1.00	7.00	1.57	1.108
14. Taking extra personal time (breaks, early departure)	1.00	7.00	2.16	1.659
15. Not reporting others' violations of company policies	1.00	7.00	1.75	1.171
Total average			1.87	1.050

**Notes:** Scale's Cronbach alpha = 0.971; approx. chi-square = 318.9770, df = 149;  $p < 0.001$

reporting intent can be categorized into three INTENT variables. We designate INTENT1 by referring to “fear of retaliation by jealousy colleagues”, INTENT2 by referring to “fear of negative impacts on the auditor firm-client relationships” and INTENT3 by referring to “fear of negative impacts on future job opportunity and career development”. Thus, in our testing model, we include these three variables to explain the correlation between trainee auditors’ likelihood of reporting client’s irregularities and their reporting intent.

### Regression models

The following regression model is used to test our research hypotheses. In this model, we define trainee auditors’ likelihood of reporting client’s irregularities as the dependent variable and run regression on the two explanatory variables, i.e. ETHICALITY and INTENT (which is represented by three individual variables), and on the control variables of FIRMSIZE, TEAMSIZ, GENDER and GPA:

$$\begin{aligned} WHISTLEBLOW = & \beta_0 + \beta_1 ETHICALITY + \beta_2 INTENT1 + \beta_3 INTENT2 \\ & + \beta_4 INTENT3 + \beta_5 FIRMSIZE + \beta_6 TEAMSIZ \\ & + \beta_7 GENDER + \beta_8 GPA + \varepsilon \end{aligned}$$

## Empirical results and tests of research hypotheses

### Descriptive statistics

Table V presents a summary of descriptive statistics on the 150 effective responses collected from those trainee auditors who worked as trainee auditors in the CPA firms assigned in a university–firm corporative accounting education program. Preliminary observations are made on the basis of those statistics for our research variables.

The first impressive fact observed on our research topic from the statistical summary is a high mean value of WHISTLEBLOW, variable for trainee auditors’ likelihood of reporting client’s irregularities (mean = 5.44, SD = 1.57), which means that there is a high trend in general among the surveyed trainee auditors to report the financial irregularities if identified. We also observe that there is, in general, a positive impression with team leader’s ethicality perceived by trainee auditors, with its proxy ETHICALITY having a mean value of 1.87 on a reverse 7-degree Likert scale. The second INTENT variable reports the highest mean value (4.06) among the three factors under investigation, implying that among the three reporting

Questionnaire items	Minimum	Maximum	Mean	SD
1. Fear of extra workload caused by whistleblowing	1.00	7.00	3.48	1.629
2. Fear of negative impacts on work performance evaluation	1.00	7.00	4.36	1.615
3. Fear of retaliations by jealousy colleagues	1.00	7.00	2.89	1.565
4. Doubt about one’s own qualification for whistleblowing	1.00	7.00	3.81	1.796
5. Proof of competencies in audit engagements	1.00	7.00	3.86	1.537
6. Consideration of CPA firm culture	1.00	7.00	4.73	1.566
7. Consideration of CPA firm policies and procedures	1.00	7.00	4.75	1.602
8. Fear of negative impacts on CPA firm–client relationships	1.00	7.00	4.06	1.610
9. Consideration of professional codes of ethics	1.00	7.00	4.81	1.600
10. Fear of negative impacts on future job opportunity and career	1.00	7.00	3.79	1.801
Total average			4.05	1.040

**Table IV.**  
Summary of scale for the trainee auditors’ reporting intent

**Notes:** Scale’s Cronbach alpha = 0.837; approx. chi-square = 242.114, df = 149;  $p < 0.001$

**Table V.**  
Descriptive statistics

Variables	<i>N</i>	Minimum	Maximum	Mean	SD
<i>WHISTLEBLOW</i>	150	1.00	7.00	5.44	1.57
<i>ETHICALITY</i>	150	1.00	6.80	1.87	1.05
<i>INTENT1</i>	150	1.00	7.00	2.89	1.56
<i>INTENT2</i>	150	1.00	7.00	4.06	1.61
<i>INTENT3</i>	150	1.00	7.00	3.79	1.80
<i>FIRMSIZE</i>	150	1.00	3.00	2.41	0.73
<i>TEAMSIZE</i>	150	2.00	40.00	7.90	5.58
<i>GENDER</i>	150	0.00	1.00	0.77	0.42
<i>GPA</i>	150	2.49	4.50	3.54	0.33
<i>Valid N (listwise)</i>	150				

intents, the trainee auditors value most the stable firm–client relationship in their whistleblowing decision.

In regards with organizational factors as control variables, **Table V** reports a 2.41 mean value of *FIRMSIZE*, which means the majority of the surveyed trainee auditors worked with domestic CPA firms, and it also reports the average audit engagement team size (*TEAMSIZE*) as between seven and nine staff.

Concerning individual factors as control variables, **Table V** reports a dominating number of female trainee auditors, and their average academic achievements at university (*GPA*) ranging between 2.49 and 4.5, with the highest point of 5.0.

#### Correlation analysis

**Table VI** summarizes the bivariate correlations of the measured variables. We can make some observations on the correlations between the dependent variable *WHISTLEBLOW* and explanatory variables. The correlation analysis reports a preliminary conclusion on the impacts of the perceived ethicality of engagement team leaders on trainee auditors' likelihood of whistleblowing (significant at the level of  $\alpha = 0.01$ ). It also indicates the possible negative association between valuing the stable firm–client relationship and reporting client's financial frauds (significant at the level of  $\alpha = 0.05$ ). Among the control variables, only *TEAMSIZE* is observed to be correlated to trainee auditors' likelihood of whistleblowing (significant at the level of  $\alpha = 0.01$ ).

From the results of correlation analysis, we find out that *ETHICALITY* is only significantly correlated to *INTENT1* (significant at the level of  $\alpha = 0.10$ ), which means other

Variables	1	2	3	4	5	6	7	8	9
1 <i>WHISTLEBLOW</i>	1.000								
2 <i>ETHICALITY</i>	-0.194**								
3 <i>INTENT1</i>	-0.134	0.143*							
4 <i>INTENT2</i>	-0.158*	-0.068	0.298***						
5 <i>INTENT3</i>	0.021	-0.049	0.329***	0.493***					
6 <i>FIRMSIZE</i>	-0.046	-0.023	0.164**	0.126	-0.024				
7 <i>TEAMSIZE</i>	-0.201**	-0.097	-0.056	0.158*	0.175**	-0.069			
8 <i>GENDER</i>	-0.042	-0.119	-0.009	0.080	-0.064	0.110	0.005		
9 <i>GPA</i>	-0.017	-0.001	0.031	0.093	0.092	-0.019	0.149*	0.207**	1.000

**Table VI.**  
Correlation analysis  
results

**Notes:** \*\*\*Correlation is significant at the 0.01 level (2-tailed),  $p < 0.01$ ; \*\*correlation is significant at the 0.05 level (2-tailed),  $p < 0.05$ ; \*correlation is significant at the 0.05 level (2-tailed),  $p < 0.10$

organizational and personal factors under investigation do not differentiate trainee auditors' perception of their engagement leader's ethicality. We also observe that INTENT1, INTENT2 and INTENT3 are very significantly correlated with each other (all significant at the level of  $\alpha = 0.01$ ), which implies that trainee auditors are difficult in differentiating their reporting intents in their ethical reasoning and decision-making relating to whistleblowing on client's frauds.

Correlation analysis also presents some interesting results: INTENT1 (majorly related to jealousy and retaliations at workplace) is significantly correlated with FIRMSIZE; INTENT2 and INTENT3 (which are associated with future career development and workplace relations) are significantly correlated with TEAMSIZE.

### Regression results

Table VII reports the results of the regression model run for the 150 effective responses collected from the questionnaire survey. Regarding organizational factors, the major research hypothesis *H1* is supported with  $t = -2.675$ , and  $p < 0.000$ . With this test result, we argue that the higher level of team leader's ethicality perceived by trainee auditors leads to the higher likelihood of trainee auditors reporting client's irregularities. Our findings regarding the impacts of organizational factors on whistleblowing are consistent with the major conclusions in the existing organization literature, which relate employee's whistleblowing to the encouragement of the ethical culture, ethical climate and ethical leadership within organizations (Miceli and Near, 1985). The positive influence of team leader's ethicality perceived by trainee auditors on the latter's whistleblowing intent implies that CPA firm's ethical culture and climate demonstrated by audit engagement team leaders are crucial to the appropriate ethical training and education for younger generations of audit professionals, particularly to the courage of

Model 1	Unstandardized coefficients		Standardized coefficients		t	Sig.
	B	SE	Beta			
(Constant)	6.494	1.407			4.617	0.000***
ETHICALITY	-0.324	0.121	-0.217		-2.675	0.008***
INTENT1	-0.113	0.088	-0.113		-1.288	0.200
INTENT2	-0.186	0.092	-0.191		-2.037	0.044**
INTENT3	0.149	0.083	0.171		1.800	0.074*
FIRMSIZE	-0.062	0.177	-0.029		-0.353	0.725
TEAMSIZE	-0.069	0.023	-0.243		-2.966	0.004***
GENDER	-0.189	0.307	-0.050		-0.614	0.540
GPA	0.176	0.390	0.037		0.450	0.653
<i>Model summary</i>						
	R	R <sup>2</sup>	Adj.R <sup>2</sup>		SE	
	0.379	0.144	0.089		1.50316	
<i>ANOVA</i>						
	Sum of squares	df	Mean square		F	Sig.
Regression	53.114	9	5.902		2.612	0.008***
Residual	316.330	140	2.259			
Total	369.444	149				

**Table VII.**  
Regression results using WHISTLEBLOW as dependent variable

**Notes:** \*\*\* Correlation is significant at the 0.01 level (2-tailed),  $p < 0.01$ ; \*\* correlation is significant at the 0.05 level (2-tailed),  $p < 0.05$ ; \*, correlation is significant at the 0.05 level (2-tailed),  $p < 0.10$

young trainee auditors at the entry level to blow the whistle on the identified client's financial frauds in the current context of auditing practices.

Table VII also reports the significant associations of WHISTLEBLOW with both INTENT2 and INTENT3 (significant at the levels of  $\alpha = 0.05$  and  $\alpha = 0.10$ , respectively). As for H2, we conclude that there are some significant impacts of the trainee auditor's reporting intents on their whistleblowing decision. In particular, trainee auditors' higher evaluation of the stable firm–client relationship reduces their likelihood of reporting client's irregularities, whereas their concerns with future career development increase the likelihood of whistleblowing. However, we document no evidence about the association between whistleblowing and fear of retaliations in our case. Judged from the regression results relating to our hypothesis on the trainee auditor's reporting intents, the findings of this study are not consistent with the earlier organization studies which highlight the fear of retaliations (Miceli and Near, 1984; Ponemon, 1994; Near *et al.*, 2004), but our findings are quite consistent with the conclusions in audit literature (Jubb, 2000; Schmidt, 2005; Kennett *et al.*, 2011).

As for the control variables, we have only documented a significantly negative association between whistleblowing and team size, implying that trainee auditors working in larger engagement teams are less likely to report their client's financial frauds than their counterparts working in smaller engagement teams. We have not documented significant evidence for correlations of whistleblowing with the factors of firm size, gender and academic achievements of the surveyed trainee auditors. The first factor of firm size can be explained by the homogeneity of those CPA firms' organizational structure. In addition, our findings are consistent with the conclusion in Brennan and Kelly (2007) that there are conflicting influences of individual demographic factors such as gender, age, experience and seniority. In particular, we have not found either significant impact of gender on trainee auditors' likelihood of whistleblowing documented in Mesmer-Magnus and Viswesvaran (2005), or evidence on the correlation between educational level and whistleblowing documented in Patel (2003).

#### *An additional test on perceived ethicality of team leaders*

Both correlation analysis and regression results have supported our research hypothesis that team leader's ethicality perceived by trainee auditors is positively correlated to the latter's likelihood of reporting client's irregularities. It is of great academic interest to further investigate how team leader's ethicality impresses trainee auditors as an indirect expression of CPA firm's ethical culture and climate. Thus, we adopt the following regression model for the purpose of this further test:

$$ETHICALITY = \beta_0 + \beta_1 FIRMSIZE + \beta_2 TEAMSIZ E + \beta_3 GENDER + \beta_4 GPA + \varepsilon$$

Table VIII reports the regression results of the additional test model, which further explains the impacts of our studied organizational and individual factors on team leader's ethicality perceived by trainee auditors. We observe significantly negative associations of ETHICALITY with both GENDER and GPA. These test results lead to our findings that male trainee auditors more easily perceive the ethicality of their team leader than females, and that the trainee auditors with lower GPA (less academic achievements) more easily perceive the ethicality of their team leader than those with higher GPA (better academic achievements). These findings of our study can inspire more future research on the ethical leadership in the audit profession.

Model 1	Unstandardized coefficients		Standardized coefficients		Sig.
	B	SE	Beta	t	
(Constant)	5.356	0.4423		12.651	0.000***
FIRMSIZE	-0.055	0.172	-0.023	-0.320	0.750
TEAMSIZ	-0.120	0.079	-0.094	-1.520	0.130
GENDER	-0.141	0.054	-0.221	-2.587	0.010**
GPA	-0.224	0.122	-0.133	-1.829	0.069*
<i>Model summary</i>					
	R	R <sup>2</sup>	Adj.R <sup>2</sup>	SE	
	0.556	0.309	0.270	0.71775	
<i>ANOVA</i>					
	Sum of squares	df	Mean square	F	Sig.
Regression	44.277	3	4.025	7.813	0.000***
Residual	98.913	192	0.515		
Total	143.190	149			

**Table VIII.**  
Regression results  
using ETHICALITY  
as dependent variable

**Notes:** \*\*\* Correlation is significant at the 0.01 level,  $p < 0.01$ ; \*\* correlation is significant at the 0.05 level,  $p < 0.05$ ; \* correlation is significant at the 0.05 level,  $p < 0.10$

### Summary and conclusions

Though there has been an increasing trend of whistleblowing literature in recent decades of management studies, not many of current literature have addressed the whistleblowing issues in the audit profession. In China's emerging audit profession, which is supposed to march its transitional capital markets, auditor's whistleblowing behavior has become an extensively criticized concern with the fast economic growths in recent decades.

This paper aims to investigate the correlations of trainee auditors' likelihood of whistleblowing to both CPA firm's organizational ethic culture represented by engagement team leader's ethicality and trainee auditor's personal reporting intents. Other organizational factors such as firm size and team size and other individual factors such as gender and academic achievement are included as control variables. Moreover, the impacts of those studied organizational and individual demographic factors on team leader's ethicality perceived by trainee auditors are also considered in our additional test.

Our empirical test results based on the questionnaire responses collected from a university-CPA firm cooperative accounting education program support our research hypothesis that team leader's ethicality perceived by trainee auditors is positively related to their likelihood of whistleblowing on client's financial frauds. Therefore, we conclude that the higher ethical culture represented by engagement team leaders leads to more courage of young trainee auditors at the entry level to make the ethical decision and take the ethical action of reporting client's irregularities. As for the associations between whistleblowing and trainee auditor's reporting intents, we conclude that trainee auditors' higher evaluation of the stable firm-client relationship reduces their likelihood of reporting client's irregularities, whereas their concerns with future career development increase the likelihood of whistleblowing. We also conclude that trainee auditors working in larger engagement teams are less likely to report their client's financial frauds than their counterparts working in smaller engagement teams.

Our additional test results lead to our conclusions about ethical leadership of audit teams. We conclude that male trainee auditors more easily perceive the ethicality of their team leader than females, and that the trainee auditors with lower GPA (less academic achievements) more easily perceive the ethicality of their team leader than those with higher GPA (better academic achievements).

This study makes its unique contributions to the existing literature of organization studies and audit research in two respects: one is provision of evidence about the significant impacts of team leader's ethicality and trainee auditor's reporting intents on the trainee auditor's likelihood of reporting client's irregularities, and the other is testing the organizational and individual demographic factors in the trainee auditor's perception of their team leader's ethicality, which proxies for the ethical culture in CPA firms.

### **Limitation and suggestions for future studies**

This paper is not an exception in terms of limitations in all research works. We are aware of the limitations caused by research design and surveyed objectives that lead to our reflections on the following limits of generalizability for our conclusions and suggestions for future studies.

First, the survey conducted in this paper focuses on a single case study of trainee auditors who perceive the ethical leadership in CPA firms and their likelihood of reporting client's irregularities. The legislative factor in different jurisdictions may play an important role in regulating the ethical leadership in the accounting profession and boosting the pro-social behavior of blowing the whistle on organizational wrongdoing (Maroun and Gowar, 2013). In light of this, researchers can devote their efforts to the cross-cultural study of the relationship between ethical leadership and the whistleblowing decision.

Second, failing to include the formal whistleblowing policies and procedures into the survey is another limitation of this paper. Fortifying the internal whistleblowing policies within the audit firm may help to explain how organizational factors influence the likelihood of whistleblowing on financial frauds if identified by professionals. Thus, further empirical studies are suggested to explore the impacts of the institutional factors such as corporate policies and ethical culture on the whistleblowing decision.

Finally, our survey focuses its questions on the auditing services in CPA firms, excluding the frauds in highly lubricated practices such as management consultation and taxation services. The diversity of new and emerging services has also brought challenges to the ethical management in CPA firms. Therefore, comprehensive investigations involving both traditional and new firm practices may lead to different findings on the impacts of organizational and individual factors on the whistleblowing decision.

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