

FACTORS AFFECTING WHISTLEBLOWING
INTENTION: AN EMPIRICAL STUDY AMONG
FINAL YEAR ACCOUNTANCY
UNDERGRADUATES

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We hereby declare that:

- (1) This undergraduate research project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.
- (2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.
- (3) Equal contribution has been made by each group member in completing the research project.
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LIST OF ABBREVIATIONS

ACCA	Association of Chartered and Certified Accountants
AVG	Average
DV	Dependent Variable
FR	Fear of Retaliation
IFAC	International Federation of Accountants
IV	Independent Variable
MC	Magnitude of Consequences
MIA	Malaysia Institute of Accountants
MLR	Multiple Linear Regression
MOHE	Ministry of Higher Education
PX	Proximity
SAS	Statistical Analysis System Enterprise Guide 5.1
SC	Social Consensus
UTAR	Universiti Tunku Abdul Rahman
WPA	Whistleblower Protection Act 2010

PREFACE

As part of the programme structure of Bachelor of Commerce (HONS) Accounting, we have the opportunity to conduct a research study titled ‘Factors affecting Whistleblowing Intention: An Empirical Study among Final Year Accounting Undergraduates’. Due to the amount of corporate scandals encountered along the years, concern about the whistleblowing propensity of the accounting profession has been arisen.

This study is conducted to examine the factors affecting whistleblowing intention of final year accountancy undergraduate. Being a final year accounting student, they are the future accountants and auditors who are held responsible for the society’s welfare. This study seeks in depth of detailed information and empirical data regarding the factors that influence the whistleblowing intention among final year accounting undergraduates.

ABSTRACT

Corporate scandals around the world have raised concern over ethicality of the accountancy profession. Accounting students are future accountants and auditors who are held accountable for the public confidence. Therefore, this study aimed to examine the factors affecting whistleblowing intention of final year accountancy undergraduates. Applying the Moral Intensity Model, the study looks into how magnitude of consequences, social consensus, and proximity affect whistleblowing intention. Besides, fear of retaliation is an additional variable to extend the study based on Moral Intensity Model. The study is designed to be a cross-sectional study using primary data collection method. Self-administered questionnaire is delivered to achieve a minimum sample size of 250 UTAR accounting undergraduates using purposive/judgmental sampling technique. Descriptive analysis will be used to summarize the demographic profile of target respondents. Reliability, normality test, Pearson Correlation Coefficient test and Multiple Linear Regression analysis will be conducted to provide empirical support for the hypotheses developed. The results suggest that magnitude of consequence (MC), social consensus (SC) and proximity (PX) have a significant relationship with whistleblowing intention (WI). This study wished to fill up Malaysia's whistleblowing research gap in academic world and practically, to improve the coverage of ethics in tertiary education.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

This research aspired to investigate the factors that have an influence on whistleblowing intention among final year accountancy undergraduates. This chapter will first talk about the background on whistleblowing issue, then the problem statement, followed by research objectives and questions and the significance of this research.

1.1 Research Background

The issue of whistleblowing has gained much attention along the years, by reason of an increasing number of corporate scandals within and outside Malaysia such as Enron, WorldCom and Transmile Group Berhad. Miceli, Near and Dworkin (as cited by Rachagan, 2012) defined whistleblowing as the reporting of illegal or immoral conduct to a person or body that has the ability to take actions against the wrongdoers. Whistleblowing has now transformed into an accountability and risk management mechanism, following a series of corporate scandals (Mustapha & Siaw, 2012).

To reduce fraud risk and protect shareholders' interests, organizations should invest in formal whistleblowing mechanism and encourage employees to report wrongdoings. Employees who sound alarm about corporate wrongdoings in an early manner can help to reduce to degree of consequences of wrongdoings (Chartered Institute of Internal Auditors [IIA], 2014). When employees choose to keep silent and allow wrongdoings to continue, the possible consequences may cost the profitability of the organizations, employee morale and shareholders' interest in the long run and even lead to loss of life (Mela, Zarefar, & Andreas, 2016).

The failure of detecting fraud by audit committee, internal auditors and independent directors in Transmile Group Berhad and the failure of Enron's auditors to blow the whistle raised concern over the ethicality of the accounting profession (Mustapha & Siaw, 2012). The fact that reputation and the image of accounting profession have been tarnished is evident in the collapse of Arthur Andersen after the scandal. Attentions have been directed towards ethics training and development in accounting curriculum to restore the integrity of the accounting profession (Win, Ismail, & Hamid, 2014).

Accounting graduates are the future accountants and auditors who are most likely to encounter corporate frauds in their career life (Kennett, Downs, & Durler, 2011). Expectations are placed on them to exercise ethical conduct and maintain public trust at all times (Fatoki, 2013). It is of utmost importance to identify the factors associated with their whistleblowing intention to empower whistleblowing as a mechanism for uncovering corporate wrongdoings.

1.2 Problem Statement

Despite the introduction of Whistleblowing Protection Act (WPA) 2010, the cases of whistleblowing does not seem to increase and the wrongdoing issues do not show a downward trend but keep on increasing. According to KPMG's Malaysia Fraud Survey 2013, 83% of the respondents agreed that fraud is a major problem of Malaysian businesses, and yet fraud detection by the mean of formal whistleblowing mechanism fell from 25% in 2009 to 21% in 2013 (KPMG, 2013). Besides, the Global Economic Crime Survey carried out by PricewaterhouseCoopers in 2016 also revealed the sharp rise in bribery and corruption cases in Malaysia from 19% in 2014 to 30% in 2016, despite the fact that 98% of companies are of the opinion that bribery and corruption are unacceptable (PricewaterhouseCoopers [PwC], 2016). This further aggravates the need to investigate the factors that hinder employees from engaging whistleblowing.

Prior researches have been conducted to examine what motivates whistleblowing and the factors affecting the propensity of whistleblowing. Prior empirical studies basically focused on the role of demographic, personal, situational and organizational variables in whistleblowing intention (Ahmad, 2011). Yet, there is no study that can include all relevant variables affecting whistleblowing intention (Miceli, Near, Rehg, & Van Scotter, 2012). Hence, further studies have to be conducted to continuously examine determinants of whistleblowing intention that are being omitted.

Furthermore, most of the past studies were emerging in a Western context, rather than in an Eastern context (Salleh & Yunus, 2015). Although the growing interest of whistleblowing issue in the Asian context is observed, but studies have been limited to countries like China, Hong Kong and Taiwan. Empirical studies of whistleblowing in Malaysia are limited and scarce (Ahmad, Smith, & Ismail, 2012). Besides, it is worth to emphasize the importance of national and cultural differences in examining whistleblowing issues (Ahmad, 2011). The whistleblowing studies conducted in different countries cannot be applied entirely to address the problem in Malaysia.

Fatoki (2013) stated that students are the potential future leaders in both private and public sectors whose views towards whistleblowing intention are important. While the studies of whistleblowing in Malaysian context focus only on accounting professionals (Ahmad, Ismail, & Azmi 2014; Ahmad, Smith & Ismail, 2012) and employees from public sector (Salleh & Yunus, 2015; Zakaria, Razak, & Yusoff, 2016), prior studies on whistleblowing intention of Malaysian accounting students are finite (Mustapha & Siaw, 2012). Hence, it is significant and essential to propose a study that aimed to gain an understanding on the factors motivating whistleblowing intention of Malaysian undergraduate accounting students.

1.3 Research Questions & Research Objectives

Table 1.1 shown below represents the general and specific research objectives and research questions to determine the factors affecting whistleblowing intention among final year accountancy undergraduates.

Table 1.1: Research Objectives and Research Questions

	Research Objectives	Research Questions
General	To examine the factors affecting whistleblowing intention among final year accountancy undergraduates.	What are the factors that affect whistleblowing intention among final year accountancy undergraduates?
Specific	1. To examine the relationship between magnitude of consequences and whistleblowing intention among final year accountancy undergraduates.	1. Does magnitude of consequences influence the whistleblowing intention among final year accountancy undergraduates?
	2. To examine the relationship between social consensus and whistleblowing intention among final year accountancy undergraduates.	2. Does social consensus influence the whistleblowing intention among final year accountancy undergraduates?
	3. To examine the relationship between proximity and whistleblowing intention among final year accountancy undergraduates.	3. Does proximity influence the whistleblowing intention among final year accountancy undergraduates?
	4. To examine the relationship between fear of retaliation and whistleblowing intention among	4. Does fear of retaliation influence the whistleblowing

	final year accountancy undergraduates.	intention among final year accountancy undergraduates?
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Source: Developed for research

1.4 Significance of Study

1.4.1 Academic/ Theoretical Contribution

Prior studies on whistleblowing issue in Malaysia are generally lack of theoretical support. The proposed study seeks to fill the research gap by introducing an important determinant of whistleblowing, which is moral intensity that may have not studied previously by researchers in a Malaysian context. This study also opens possible avenues for future research study how moral intensity play a role in ethical decision making, besides demographic and personal variables that are repeatedly studied in Malaysia. Further, this study also extends the empirical studies of whistleblowing intention among Malaysian accounting students, an important subject of interest that is being neglected. It is important to examine factors influencing the behavioural intention of students as they are in greater possibility to encounter unethical conduct in the accounting and auditing profession. This proposed research also wishes to provide future researchers with source of information of whistleblowing studies in Asian context.

1.4.2 Practical/ Managerial Contribution

Practically, the proposed study urges to recognize the importance of ethics education among accounting students. Although educational institutions have been introduced ethics courses in their curriculum, the sufficiency of the ethics coverage should also be reviewed and evaluated. In fact, initiatives to improve coverage of ethics in accounting curriculum have been

taken by various professional bodies such as Malaysian Institute of Accountants (MIA), Association of Chartered Certified Accountants (ACCA) and International Federation of Accountants (IFAC) (Win et al., 2014). Further, the proposed study also wishes to encourage organizations to conduct ethics training programs by taking into consideration of components of moral intensity. At the same time, organizations should design whistleblowing channels and policies that reduce potential whistleblower's fear of retaliation.

1.5 Outline of Study

The remaining part of our study is organized as follows. The next chapter, Chapter 2 will provide literature review on theoretical background on Moral Intensity Model, a review of past empirical studies, proposed research model that illustrates the relationship between moral intensity and whistleblowing intention, followed by hypotheses development. Chapter 3 will describe research methodology used for this study encompasses research design, method used to collect data, sampling design, construct measurement, data processing and analysis technique. Chapter 4 will outline the pilot test results, description of sample characteristics, together with scale measurement and inferential analysis. The concluding chapter, Chapter 5 will summarize the empirical findings, limitations of study with recommendations and implications of study.

1.6 Conclusion

This chapter generally explores the background of topic, problem statement that supports the rationale of exploring whistleblowing issue, research objectives and questions, last but not least, significance of study, from both academic and managerial perspectives.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

The earlier chapter gives a brief introduction about the background of research, problem statement triggering the need of this study, research objectives and questions and the significance of this study. This chapter will look into the past studies of each variables, the theoretical foundation for this study, development of hypotheses with an illustration of research model.

2.1 Review of the Literature

2.1.1 Whistleblowing Intention (WI)

There is no one clear definition of the term “whistleblowing” universally (Erkman, Caliskan, & Esen, 2012). Near and Miceli (as cited by Kennett et al., 2011) defined whistleblowing as “the disclosure by organization members (former or current) of illegal, immoral, or illegitimate practices to persons or organizations that may be able to effect action”. However, WI refers to “the probability that an individual will engage into actual whistleblowing behaviour” (Chiu, 2002).

Generally, there are two type of whistleblowers. Internal whistleblowers are complainants who report wrongdoings to internal party within the organization such as the senior management, while external whistleblowers make complaint to a third party such as the government or legal regulators. The study concerns about the overall effect of moral intensity on WI and hence, it does not distinguish between internal or external whistleblowing.

One of the prior studies on whistleblowing conducted by Erkman et al. (2012) analyzed whether Turkish accounting professionals will blow the whistle when noticing a serious wrongdoing in the workplace. Their empirical results based on three whistleblowing scenarios, however, showed mild tendency of respondents to blow the whistle on average.

Study by Kennett et al. (2014) examined the intention of accounting majors to blow the whistle externally on massive fraudulent financial reporting, considering possible personal and societal consequences of whistleblowing. Findings showed that approximately 75% of the participants tend to blow the whistle, but none were certain they would blow the whistle.

Another study by Mustapha and Siaw (2012) sought to determine perception of whistleblowing of future accountants and how seriousness of wrongdoings, gender and academic performance affect WI among final year accounting students in a Malaysia public university. Results revealed that majority understand the importance of whistleblowing and took a relatively moderate approach towards willingness to whistle-blow. They tend to take the “wait and see” approach but they would whistle-blow only when there is a necessity.

Study by Fatoki (2013) examined the perception of final year accounting students about whistleblowing in relation to strength of retaliation, materiality and gender. The results revealed that most of the respondents regarded whistleblower as a hero and agreed the importance of whistleblowing in enhancing public interest and reducing corruption, fraud and mismanagement.

Another research examined how organizational commitment and corporate ethical values affect accountants' perceptions of whistleblowing in Barbados. However, analysis of data showed that accountants were unlikely to blow the whistle despite whistleblowing was not perceived as a wrong action (Alleyne, Weekes-Marshall, & Arthur, 2013).

2.1.2 Magnitude of Consequences (MC)

Shawver and Clements (2015) defined MC as “the harm or benefit to individuals arising from an action”. Valentine and Hollingworth (2012) also regarded MC as seriousness of the impact of an unethical action. Sampaio and Sobral (2013) stated that MC is corresponded with the extent to which an individual associates with the consequences of a moral issue, (i.e., seriousness of the wrongdoing). To illustrate, an issue that causes loss of life has greater MC than an issue that only causes the victim to suffer a minor injury (Smith et al., 2016). Individuals perceive whistleblowing as necessary given a more serious cases and convince them that whistleblowing is a right course of action (Sampaio & Sobral, 2013).

Mustapha and Siaw (2012) studied the likelihood of blowing the whistle in relation to seriousness of questionable act, gender and academic performance among final year accounting students in a Malaysian public university. Findings presented that seriousness of the questionable act is significantly related to the possibility of whistleblowing. A study by Wang et al. (2015) proposed a research model that examined intentions of software engineers to report IT system bugs based on moral intensity and morality judgment. Their result displayed that MC has direct effect on the employees' willingness to report bad news. Another paper examined on the influence of perceived support, organizational values or culture and severity of wrongdoing on internal whistle-blowing intentions among 250 management and administration personnel. The results provided support that impact of

wrongdoings is positively related with intention to whistle blow (Pillay, Dorasamy, & Vranic, 2012). Study by Ballantine (2002) examined the effect of moral intensity upon ethical intention among undergraduate marketing students from Malaysian and New Zealand. Findings supported that MC has significant relationship with ethical intentions of subjects. Research by Arnold et al. (2013) investigated the influence of situational context on ethical decision-making and judgment evaluations among internal auditors, external auditors from small-sized firms and international firms. Analysis of results supported the hypothesis that MC influenced the ethical evaluation and intention to act ethically.

2.1.3 Social Consensus (SC)

Morris and McDonald (1995) defined SC as “the level of people’s agreement about the effects of the social issue”. Definition of SC by Chen and Lai (2014) is “the extent of social agreement that the act was evil or good”. The study of Musbah, Cowton and Tyfa (2016) refers SC as “the degree of social acceptance that a given act is good or evil”. SC is also defined as the agreement about the negativity of an action (Valentine & Hollingworth, 2012). SC is also perceived as social norm whereby individuals commonly based upon the expectations of others to rationalize a course of action (Bateman, Valentine, & Rittenburg, 2013). When people close to him or her approve or agree the behaviour, an individual will feel less ambiguous and more likely to engage in the ethical behavior (Trongmateerut & Sweeney, 2013).

A study by Sweeney and Costello (2009) explored how perceived moral intensity affect identification of an ethical dilemma, ethical judgment, ethical intentions for third year undergraduate accounting and business students. Their study provided empirical support that SC has the strongest relationship with the ethical decision making, compared to other

components. Schmidtke (2007) conducted study about observers' reactions to coworker theft in relation to SC and perceived similarity on 223 non-supervisory employees of a restaurant chain. Results showed that SC has insignificant relationship with reporting theft. Shawver and Clements (2011) studied the effect of perceived SC on reporting earnings management internally by practicing accountants. Their study found that SC is a significant factor of decision to whistle blow. Chen and Lai (2014) examined the impact of moral intensity (potential harm and social pressure) on WI and behaviour, mediating by organisational commitment. Findings showed that there was no significant relationship between social pressure and WI. Another research studied the association of three dimensions of moral intensity (MC, SC and temporal immediacy) with the ethical decision making among 229 Libyan management accountants. The results revealed that SC has limited significance to ethical intention (Musbah, Cowton & Tyfa, 2016).

2.1.4 Proximity (PX)

PX is defined as “the degree to which an actor can identify with potential victims of the social issue” (Morris & McDonald, 1995). Mencl and May (2009) described PX as “the degree of closeness between the victim or beneficiary of a moral act and the moral agent”. Definition of PX by Shawver (2011) refers to how socially, culturally, physically close the victim of a moral act is to the decision-maker. PX is measured as “the closeness to those harmed by the impact of a moral issue” (Valentine & Hollingworth, 2012). When the victims have a close relationship with an individual, he or she is more likely to be alarmed and their moral judgment will increase willingness to report the bad news (Lincoln & Holmes, 2011). The study of Singer et al. (as cited in Taylor & Curtis, 2013) posited that when the moral agent is close with the victim of a questionable act, the perceived empathy will be greater and influence the intention

whistleblowing. For example, PX effect is greater when layoffs happened in our own company rather than in other company (Shawver, 2011).

Study by Carlson, Kacmar, and Wadsworth (2009) examined the impact of three moral intensity dimensions (concentration of effect, PX and probability of effect) on ethical decision making of senior level college students. The results supported their hypothesis that PX of an individual and the victim has positive relationship with perceived ethicality of the act involved. Another study by Lincoln and Holmes (2011) investigated the relationship of five components of moral intensity with moral awareness, moral judgment, and moral intention among students attending a service academy. Empirical findings suggested that PX has moderate relationship to moral intention. The study of Wang et al. (2015) proposed a model to study the effect of moral intensity on intention of employee to report system bugs. Based on survey data collected from 173 software engineers, results revealed that PX to victims indirectly influences intentions of bad news reporting through morality judgment. Research by Mencl and May (2009) explored the effect of MC and different types of PX (social, psychological, and physical) on the ethical decision making process of human resource professionals. Findings exhibited that PX do not influence ethical decision making.

2.1.5 Fear of Retaliation (FR)

People choose not to report misconducts partly because they are afraid of the potential retaliation against them (Wainberg & Perreault, 2016). Retaliation is defined as undesirable action taken against a whistleblower as a result of internal or external whistleblowing (Rehg, Miceli, Near, & Van Scotter, 2008). Another definition of retaliation is a range of positive or negative consequences encountered by whistleblower in direct response to whistleblowing (Erkmen et al., 2014). Examples of potential consequences

of reporting wrongdoings might be being fired or early retirement, difficult to secure employment, being insulted or harassed and suffering false allegations about the character and actions of the whistleblower (Kennett et al., 2011).

Kennett et al. (2011) studied on the external WI of 81 accounting majors on fraudulent financial reporting given specified personal and social consequences. Empirical results showed that the personal financial costs variable is negatively correlated with the WI and the relationship is statistically significant. Another study by Fatoki (2013) investigated the perception of 250 final year accounting students about whistleblowing in relation to impact of the strength of retaliation and materiality. The results indicated that retaliation is negatively correlated with likelihood of WI. The stronger the strength of retaliation, the lesser the intention to blow the whistle. A research done by Elias and Farag (2015) examined how retaliation affect the accounting students' perception whether an internal auditor will blow the whistle. Their findings indicated that, under certain outcomes of retaliation, threat of retaliation had a negative relationship with the likelihood of whistleblowing. Study by Cassematis and Wortley (2013) investigated the possibility to use fear of reprisals to determine whether public sector employees in Australia will whistle blow. The result revealed that fear of reprisals weakened their WI. Another study by Latan, Ringle and Chiappetta Jabbour (2016) argued that individual variables such as personal cost of reporting affect WI of Indonesian public accountants. Findings displayed that the perceived personal cost of reporting affect WI.

2.2 Review of Relevant Theoretical Model(s)

The Moral Intensity Model was introduced by Thomas M. Jones in 1991. Moral intensity is defined as “a construct that captures the extent of issue-related moral imperative in a situation” (Jones, 1991, p. 23). The emergence of moral intensity was due to the characteristics of moral issue being ignored in ethical decision

making theories (Smith, Kistruck, & Cannatelli, 2016). Jones conceptualised his model based on Rest’s Four-Component Model which consists of recognizing moral issue, moral judgment, moral intention and moral behaviour (Lincoln & Holmes, 2011). Clements and Shawver (2011) stated that components in Jones’ model affect all four stages in Rest’s model. Therefore, when the perceived moral intensity is high, a moral issue is recognised, moral judgment is triggered, moral intention is established and that individual would engage in moral behaviour.

The Moral Intensity Model has been widely adopted in numerous research areas. Table 2.1 exhibits the past researches done on the influence of moral intensity on ethical decision making.

Table 2.1: Application of Moral Intensity Model in prior studies

Author	Research Area	Description
Wang, Keil, and Wang (2015)	Information Technology (IT)	To study the effect of moral intensity on employees’ bad news reporting.
Shawver (2011)	Earnings management	To examine how moral intensity relates with employees’ whistleblowing intention on earnings management.
Bhal and Dadhich (2011)	Management	To explain how moral intensity moderate the effect of ethical leadership and leader-member exchange on whistleblowing.
Arnold Sr, Dorminey, Neidermeyer, and	Accounting and auditing	To examine the influence of moral intensity on the ethical decision-making and judgment of internal

Neidermeyer (2013)		auditors, external auditors from larger international firms and those from regional firms.
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Jones proposed that Moral Intensity Model consist of six dimensions namely magnitude of consequences, social consensus, probability of effect, temporal immediacy, proximity and concentration of effect (Alleyne, Hudaib & Pike, 2013). The definition for each dimension of Moral Intensity Model is provided in the following Table 2.2.

Table 2.2 Concepts in Moral Intensity Model

Dimension (s)	Definition	Source
Magnitude of consequences	“The sum of the harms (or benefits) done to victims (or beneficiaries) of the moral act in question”.	(Jones, 1991, pp. 374)
Social consensus	“The degree of social agreement that a proposed act is evil (or good)”.	(Jones, 1991, pp. 375)
Proximity	“The feeling of nearness (social, cultural, psychological, or physical) that the moral agent has for victims (beneficiaries) of the evil (beneficial) act in question”.	(Jones, 1991, pp. 376)
Probability of effect	“A joint function of the probability that the act in question will actually take place and the act in question will actually cause the harm (benefit) predicted”.	(Jones, 1991, pp. 375)
Temporal Immediacy	“The length of time between the present and the onset of consequences	(Jones, 1991, pp. 376)

	of the moral act in question”. The shorter the length of time, the greater the immediacy.	
Concentration of effect	“An inverse function of the number of people affected by an act of given magnitude”.	(Jones, 1991, pp. 377)

Jones (1991) reported that relationships exist between all dimensions and moral intensity. Suppose an increase in any of the dimensions in moral intensity will increase the level of moral intensity, assuming the other dimensions remains constant. Jones (1991) further emphasized that these dimensions which represent the characteristics of moral issue have iterative effect on each other.

Hence, an ethical decision will be regarded as having high level of moral intensity when the action is perceived as unethical by most people, provided that serious consequences are likely to occur in the near future, and adversely affect large sum of individuals who are physically, socially and culturally close to the moral agent (Shawver, 2011).

MC, SC, and PX are employed as part of the independent variables (IVs) in this study. The reason being MC, SC and PX are regarded as significant predictors of moral intention (Wang et al., 2015; Lincoln & Holmes, 2011; Arnold Sr et al., 2013). Besides that, these three dimensions also form a single dimension that predict moral intention according to Barnett (as cited in Leitsch, 2006). However, there are no past studies that explored the effect of these three dimensions on the WI to the best of our knowledge. Inclusion of these three dimensions aimed to overcome this deficiency.

However, this study excludes concentration of effect, probability of effect and temporal immediacy component. Firstly, past researches failed to provide empirical evidence to include concentration of effect in the moral intensity model (Lincoln & Holmes, 2011). Secondly, the past studies of concentration of effect appears to be inconclusive. For instance, study by Frey (2000) suggested that it is a significant predictor, but it was found to have minor influence on moral intention in Singer's study in 1998 (Lincoln & Holmes, 2011). Thirdly, both Barnett and Frey's study (as cited in Lincoln & Holmes, 2011) stated that temporal immediacy has negligible influence on moral awareness, moral judgment and intention.

FR is the additional variable included into the proposed framework. Surveys revealed that most people refuse to whistle-blow primarily because they are fearful of the retaliation (Wainburg & Perreault, 2016). As such, the personal costs of whistleblower (i.e., retaliation) has become the subject of various past studies (Kennett et al., 2011). In addition, inclusion of FR which is a situational factor (as stated in Cassematis & Wortley, 2013) will make this study more complement because moral intensity is also situational factor (as provided in Wang et al., 2015).

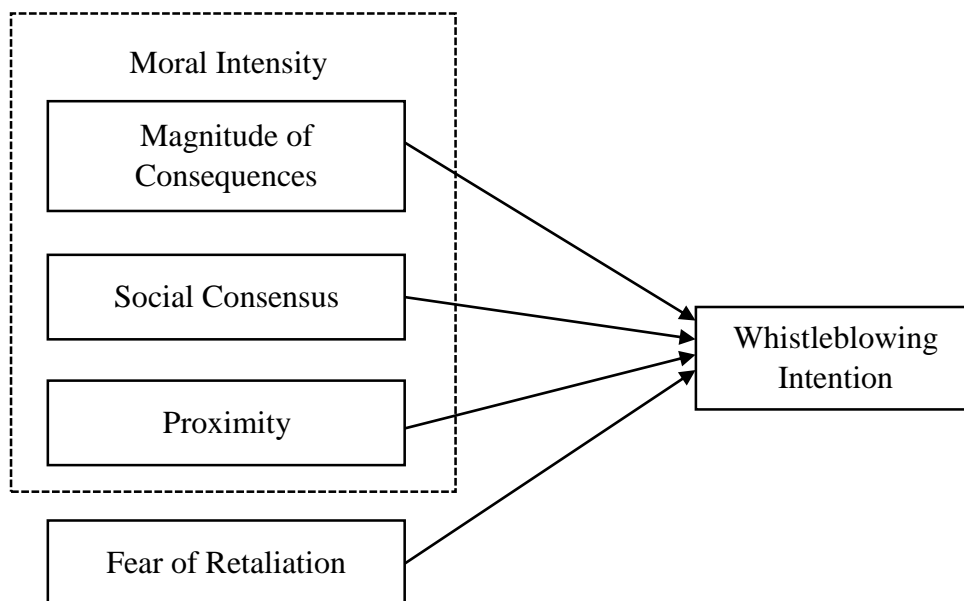
Whistleblowing is a complex ethical decision which will be affected by the level of moral intensity (Clements & Shawver, 2011). Hence, WI which represents moral intention in the Moral Intensity Model is applied as the dependent variable (DV) for this study. This study does not include moral behaviour in its investigation because of the difficulty to investigate actual whistleblowing cases in organizations and to approach actual whistleblowers for questioning (Sampaio & Sobral, 2013).

In short, this study aimed to investigate the association between MC, SC, PX, FR and WI.

2.3 Proposed Theoretical/ Conceptual Framework

Figure 2.1 represents the proposed conceptual model illustrating factors affecting whistleblowing intention of final year Accountancy undergraduates.

Figure 2.1: Theoretical model exhibiting factors affecting whistleblowing intention of final year Accountancy undergraduates.



Adapted from: Jones (1991); Latan, Ringle, & Chiappetta Jabbour (2016)

2.4 Hypotheses Development

Four hypotheses are developed for this study and are shown as follows:

H₁: There is a significant relationship between MC and the WI of final year Accountancy undergraduates.

H₂: There is a significant relationship between SC and the WI of final year Accountancy undergraduates.

H₃: There is a significant relationship between PX and the WI of final year Accountancy undergraduates.

H₄: There is a significant relationship between FR and the WI of final year Accountancy undergraduates.

2.5 Conclusion

An overview of past studies, theoretical foundation, hypotheses development and theoretical framework has been included in this chapter. The following chapter will talk about the research methodology in terms of research and sampling design, data collection method, construct measurement, data processing and analysis techniques.

CHAPTER 3: RESEARCH METHODOLOGY

3.0 Introduction

The chapter provides a general review on the research methodology of this research study. It includes outline of research and sampling design, method of data collection, and research instrument used to collect empirical data. It also comprises of the constructs measurement, data processing and analysis.

3.1 Research Design

The study aimed to investigate the factors affecting WI among final year accountancy undergraduates, namely MC, SC, PX and FR. The study is a quantitative research which involves primary data collection using self-administered survey questionnaire. According to Sivo, Saunders, Chang, and Jiang (2006), questionnaire is effective in reaching wider range of respondents and gather large amount of data at a relatively low cost. Compared to face-to-face or phone interview, respondents of questionnaire feel more comfortable to answer sensitive and private question. Further, problem of interviewer bias or variability is evitable (Sivo et al., 2006).

The study will be a cross-sectional type of study since data collection will be carried out once to make a conclusion for the population at a specified time. Moreover, cross-sectional survey is recommended for studies that aimed to describe behavior or attitudes of an individual (Mathers, Fox, & Hunn, 2009, p. 5). Hence, our study that explores students' perspective towards whistleblowing is fit to use cross-sectional data collection method. Final year accountancy undergraduates are the unit of analysis of the study.

3.2 Data Collection Method

3.2.1 Primary Data

Primary data collection using survey questionnaire is the preferred data collection procedure as survey questionnaire is frequently used in the study of attitudes and behavior (Mathers et al., 2009, p. 5). In fact, Miceli et al. (as cited by Salleh & Yunus, 2015) provided that survey is a common method to collect primary data for WI studies.

3.3 Sampling Design

3.3.1 Target Population

The target population for the study is university accounting undergraduates who are currently in their final year of study. According to Fatoki (2013), it is important to explore the students' perspective towards WI as they are the potential future leaders in both private and public sectors. Accounting majors close to graduation represent the available entry-level auditors (Elias & Farag, 2015). Additionally, auditing students are more likely to blow the whistle as compared to other business students as whistleblowing is perceived as serious by them (Mustapha & Siaw, 2012). Peecher and Solomon (as cited by Curtis, Conover, & Chui, 2012) also commented that it is acceptable to employ accounting students as the surrogate of ethical studies on business professionals.

3.3.2 Sampling Frame and Sampling Location

Sample is drawn from the population because of the difficulty to reach every single accountancy students in Malaysia. According to a study conducted by Ministry of Higher Education (MOHE), there are 6,385 Bachelor Degree accounting graduates in 2015 (Ministry of Higher Education [MOHE],

2016). Distributing questionnaire to more than six thousands students will incur high cost and time. Therefore, a sampling is preferable due to budget and time constraints. Private university accounting students are the target respondents of the study because the number of private university accounting students can fairly represent the entire population as shown in Table 3.1.

Table 3.1: Number of Accounting Graduates in 2015

	Number of Accounting Graduates	Percentage (%)
Public University	2,715	42.5
Private University	3,670	57.5
Total	6,385	100

Source: MOHE (2016)

Specifically, accounting students from one of the local private universities, Universiti Tunku Abdul Rahman (UTAR) were invited to participate in the study. According to a survey data published by MOHE (2017), UTAR produces the most number of accounting graduates among the private universities in Malaysia. Additionally, UTAR is the only Malaysians' private university in the top 120 of Times Higher Education Asian University Ranking 2017 (Bothwell, 2017).

3.3.3 Sampling Elements

The sampling elements are final year accounting undergraduates from UTAR Kampar and Sungai Long campuses.

3.3.4 Sampling Technique

The sampling frame listing all accounting undergraduates in Malaysia is not available. Accordingly, non-probability sampling technique is employed in this study (Battaglia, 2008). Purposive sampling method is selected for data

collection. Purposive sampling method is also known as the judgmental sampling. The participants are deliberately chosen due to the qualities or knowledge they possess (Etikan, Musa, & Alkassim, 2016). The target respondents of the study are final year accounting students specifically. Instead of distributing questionnaires to any student in UTAR campus, individuals that are known to be final year accounting students will be identified and invited to participate the study. Bernard (as cited by Etikan et al., 2016) stated that purposive sampling ensures that data can be collected from individuals who can provide relevant information by virtue of knowledge or experience.

3.3.5 Sampling Size

Rule of 250 and Rule of 10 guided the sample size determination in the study. Cattell (as cited in MacCallum, Widaman, Zhang, & Hong, 1999) suggested that the minimum sample size of 250 is desirable. According to Velicer and Fava (1998), for each item in the instrument used, there must be a minimum of 10 cases. The study should have at least 210 cases since the questionnaire designed consists of 21 items. However, the study set 250 as the minimum sample size.

3.4 Research Instrument

Data collection was carried out during first week of May trimester. 300 sets of self-administered survey questionnaire were distributed to final year accounting students in UTAR Kampar and Sungai Long campuses. The survey questionnaire includes a page of general information, providing definition of each variable for the respondents' reference. Respondents took an average of 4 minutes to complete the entire set of questionnaire.

Based on data furnished by Head of Department of Accounting of both campuses as shown in Table 3.2, there are more accountancy students in UTAR Sungai Long campus, as compared to Kampar campus. To ensure there is no significant bias exists, the sample is made up of more students from Sungai Long campus.

Table 3.2: Number of final year UTAR Accounting students

Campus	Number of final year Accounting students	Percentage (%)
UTAR Kampar	337	44.5
UTAR Sungai Long	420	55.5
Total	757	100

Source: Developed for research

Advice from accounting lecturers holding Master and PhD degree was sought to ensure its suitability prior to pilot testing. Before distributing the final set of questionnaire, pilot test was conducted among 30 accounting students from UTAR Kampar campus. A pilot test allows researchers to assess whether there are any confusing questions or whether survey structure is reader-friendly (Curtis, 2008).

3.5 Constructs Measurement

The IVs of the research study consist of MC, SC, PX and FR. These variables are hypothesized to affect the DV, WI. There are various definitions given by different researches for each variables. Yet, the definition of each variable for this study are provided in Table 3.3.

Table 3.3: Definition of Variables for the Study

Variables	Definition	Source
Magnitude of consequences (MC)	“The extent of the consequences associate with a moral issue (i.e., seriousness of wrongdoings).”	(Sampaio & Sorbal, 2013, pp. 377)

Social consensus (SC)	“The degree of social acceptance that a given act is good or evil.”	(Musbah et al., 2016, pp. 341)
Proximity (PX)	“The closeness of an individual to the victim in a situation”.	(Carlson et al., 2009, pp. 539)
Fear of retaliation (FR)	“Undesirable action taken against a whistleblower in direct response to the whistleblowing (who reported wrongdoing internally or externally)”.	(Rehg et al., 2008, pp. 222)
Whistleblowing intention (WI)	“Probability (willingness) that an individual will exhibit whistleblowing behaviour”.	(Chen & Lai, 2014, pp. 329)

Source: Developed for research

There are 17 items for four IVs and 4 items for the DV using interval level of measurement. The measurement for total 21 items is adapted from as stated in Table 3.4 and Appendix B:

Table 3.4: Measurement of Variables

Variables	No. of items	Source
Magnitude of consequences	4	Baird, Zelin, and Olson (2016)
Social consensus	5	Trongmateerut and Sweeney (2013)
Proximity	3	Carlson et al. (2009)
Fear of retaliation	5	Brown (2008)
Whistleblowing intention	4	Chen and Lai (2014)

Source: Developed for research

This study anchors 5-point Likert scale to each item in the questionnaire to measure seriousness for MC, ranging from 1=not serious at all to 5=extremely serious and to measure agreeableness for the other variables, ranging from 1=strongly disagree to 5=strongly agree.

3.6 Data Processing

Out of the 300 sets of questionnaire distributed, 256 sets are collected, achieving a response rate of 85.33%. The usable questionnaires that are fit for data analysis further reduced to 255 sets. That particular set of questionnaire is unusable and eliminated due to incomplete response.

A computer software which is SAS Enterprise Guide 5.1 will be operated to process data collected. One of the items for the third IV, PX is designed to be reverse-coded. Therefore, the data processing involves recoding, whereby the code for responses of that particular item is recoded before further analysis. To illustrate, response for code 1 = 5, while code 5 = 1. Empirical results generated will be explained in the subsequent chapter.

3.7 Data Analysis

3.7.1 Descriptive Analysis

Descriptive analysis describes the sample characteristics. Demographic profile of the target respondents is analyzed using the frequency and percentage test. The test helps to transform intricate respondents' data into more meaningful information (Thompson, 2009). Moreover, variables of the study are also interpreted by mean and standard deviation analysis. Mean measures the central tendency, while standard deviation measures variability of data. According to Teh, Othman, Sulaiman, Mohamed-Ibrahim, and Razha-Rashid (2016), mean and standard deviation value of each item in the questionnaire should lie within the 5-point Likert scale.

3.7.2 Scale Measurement

3.7.2.1 Reliability Test

Reliability test is employed to test whether the data is consistent and reliable using Cronbach's alpha test. It is essential to ensure reliability of data so that the outcomes of result are reliable and measurement is fair and bias-free (Sekaran, 2013). Table 3.5 exhibits the rule of thumb for Cronbach's alpha test.

Table 3.5: Rule of Thumb for Cronbach's alpha test

Alpha Coefficient Range	Strength of Association
< 0.6	Poor
0.6 to < 0.7	Moderate
0.7 to < 0.8	Good
0.8 to < 0.9	Very good
≥ 0.9	Excellent

Source: Sekaran, U., & Bougie, R. (2013). *Research methods for business: A skill-building approach (6th ed.)*. New York: John Wiley & Sons.

3.7.2.2 Normality Test

On the other hand, normality test aimed to examine the normal distribution of IVs and DV by using skewness/kurtosis test. According to Kline (as cited by Mustapha & Siaw, 2012), skewness and kurtosis value which fall within ± 3.00 imply that data is normally distributed. Normality test is important to ensure assumption of normal distributed data is fulfilled prior to multiple linear regression test.

3.7.3 Inferential Analysis

3.7.3.1 Pearson Correlation Coefficient

Correlation test measures the strength of linear relationship between IVs and DV using Pearson's Correlation Coefficient Test (Salleh & Yunus, 2015). The strength of association in different coefficient range is illustrated in Table 3.6.

Table 3.6: Rule of Thumb for Pearson's Correlation Coefficient Test

Coefficient Range	Strength of Association
+0.90 to +1.00 (-0.90 to -1.00)	Very high positive (negative) correlation
+0.70 to +0.90 (-0.70 to -0.90)	High positive (negative) correlation
+0.50 to +0.70 (-0.50 to -0.70)	Moderate positive (negative) correlation
+0.30 to +0.50 (-0.30 to -0.50)	Low positive (negative) correlation
0.00 to +0.30 (0.00 to -0.30)	Negligible correlation

Source: Hair, J. F. Jr., Money, A. H., Samouel, P., & Page, M. (2007). *Research methods for business*. East Lothian, UK: John Wiley & Sons.

Besides assessing the strength of correlation, Pearson Correlation Coefficient is useful in determining whether multicollinearity problem exist. Multicollinearity problem exists when an IV is highly correlated with another IV. Hair, Black, Babin, and Anderson (2009) suggested that the correlation value should not exceed 0.9 to avoid such problem.

3.7.3.2 Multiple Linear Regression (MLR) Analysis

MLR test analyses the hypotheses developed by measuring how multiple IVs is related with a single DV (Ahmad et al., 2012). There are few key assumptions of MLR analysis. Firstly, data is normally distributed.

Secondly, linearity exists between all variables. Thirdly, absence of multicollinearity problem exists between variables. Fourthly, data have equal variances (i.e., homoscedasticity) (Saunders, Lewis, & Thornhill, 2012).

The study adopts MLR analysis because there are more than two IVs and one DV. R^2 generated indicates how well the variables studied are able to explain the changes in the dependent variable. The MLR equation for the study is shown in Figure 3.1:

Figure 3.1: Multiple linear regression equation

$$WI = \beta_0 + \beta_1MC + \beta_2SC + \beta_3PX + \beta_4FR + \varepsilon, \text{ where:}$$

WI = Whistleblowing Intention

MC= Magnitude of Consequences

SC = Social Consensus

PX = Proximity

FR = Fear of Retaliation

β_0 = Constant

ε = Error term

Source: Developed for research

3.8 Conclusion

This chapter summarizes the research methodology, covering research and sampling design, data collection method, constructs measurement, data processing and analysis techniques. The results and analyses of data will be presented in the next chapter.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

This chapter discusses the results of pilot test before final distribution of survey questionnaire. Besides that, the chapter also encompasses the analysis of sample characteristics, reliability and normality of data and inferential analysis to support the hypotheses developed earlier.

4.1 Pilot Test Analysis

Pilot test is held among 30 respondents prior to final distribution of survey questionnaire. Instead of pilot testing on undergraduates from both campuses, we invited only accounting undergraduates from UTAR Kampar campus to participate in the pilot test. There is no indication of bias as they represent the undergraduates from different states in Malaysia also. Due to the small sample size, only reliability, normality and multicollinearity test are directed for pilot test. Minor amendments are done before finalizing the survey questionnaire.

4.1.1 Reliability Test

To ensure consistent measurement of data, Cronbach's alpha needs to achieve minimum 0.7. However, Churchill suggested that a Cronbach's alpha value of 0.6 is tolerable (Rahimnia & Hassanzadeh, 2013). Table 4.1.1 describes the reliability of constructs, expressed in terms of Cronbach's alpha value.

Table 4.1.1: Reliability Test (Pilot Test)

Variables	Constructs	Number of items	Cronbach's alpha value
IV1	Magnitude of Consequences	4	0.8103
IV2	Social Consensus	5	0.9082
IV3	Proximity	3	0.7225
IV4	Fear of Retaliation	5	0.6401
DV	Whistleblowing Intention	4	0.6226

Source: Developed for research

Table 4.1.1 depicts that the constructs' Cronbach's alpha value. The Cronbach's alpha for most of the constructs achieved beyond 0.7, but there are two constructs which obtained beyond 0.6. However, they are still considered acceptable. The minimum requirement for reliability of pilot test is proven achieved.

4.1.2 Normality Test

To ensure normal distribution of data, the rule of thumb for skewness or kurtosis has to fall within -3.00 and +3.00 (Mustapha & Siaw, 2012). Table 4.1.2 describes the normality of constructs expressed in terms of skewness and kurtosis value.

Table 4.1.2: Normality Test (Pilot Test)

Construct	Items	Skewness	Kurtosis
Magnitude of Consequences	MC1	-0.4092	-0.7699
	MC2	-0.6622	-0.0262
	MC3	-1.2158	0.6235

	MC4	-1.3084	1.3523
Social Consensus	SC1	-0.6563	-0.2471
	SC2	-0.4677	-0.0830
	SC3	-0.5983	-0.4300
	SC4	-0.4871	0.3911
	SC5	-0.8269	0.4833
Proximity	PX1	-1.4478	1.8914
	PX2	-0.9755	1.7262
	PX3_recoded	-0.4786	-0.3605
Fear of Retaliation	FR1	-0.5860	-0.5889
	FR2	-1.0525	0.9249
	FR3	-0.7159	0.5166
	FR4	-0.7854	0.1996
	FR5	-0.1474	-0.9119
Whistleblowing Intention	WI1	-0.7548	2.1378
	WI2	-0.2841	-0.4431
	WI3	-0.6322	1.478
	WI4	-0.0406	-0.5674

Source: Developed for research

Table 4.1.2 presents that the skewness and kurtosis value for all items. The skewness and kurtosis for all of the items in the pilot test survey range from -1.4478 to -0.0406 and -0.9119 to 2.1378 respectively, which fall within the required ± 3.00 . Therefore, it indicates that the data is normally distributed.

As a result of the pilot test, the data is reliable and is normally distributed. Hence, the set of survey questionnaire is valid and suitable for data collection.

4.2 Descriptive Analysis

4.2.1 Demographic Profile of Respondents

300 sets of survey questionnaire were self-administered and 256 sets managed to be collected, achieving a response rate of 85.33 per cent. Of the 256 sets of survey questionnaire collected, only 255 sets are usable. The demographic profile of 255 respondents (including gender, age, ethnicity, campus, year of study and course of study) are described in the following sections.

Table 4.2.1: Gender of Respondents

	Frequency	Percentage (%)
Male	85	33.33
Female	170	66.67
Total	255	100.00

Source: Developed for research

Table 4.2.1 shows the composition of the respondents' gender. Out of 255 respondents, 85 of them are males, comprising 33.33 per cent. The remaining 66.67 per cent are females, which are 170 of them.

Table 4.2.2: Age of Respondents

	Frequency	Percentage (%)
Below 20	0	0
20-22	178	69.80
23-25	70	27.45
Above 25	7	2.75
Total	255	100.00

Source: Developed for research

The makeup of the respondents' age group are illustrated in Table 4.2.2. Greater number of the respondents (178 of them) are from age group 20-22, representing 69.80 per cent of the total. There are a few respondents are from age group 23-25 and above 25. The table above clearly shows that accounting undergraduates are in their early of 20s.

Table 4.2.3: Ethnicity of Respondents

	Frequency	Percentage (%)
Malay	1	0.39
Chinese	243	95.29
Indian	11	4.31
Others	0	0
Total	255	100.00

Source: Developed for research

Table 4.2.3 signifies the frequency and percentage of respondents' ethnicity. 243 respondents are Chinese (95.29 per cent), followed by 11 Indians (4.31 per cent), 1 Malay (0.39 per cent). There is no respondent of other ethnicity. Most of the students in UTAR are Chinese and hence, respondents mainly consist of Chinese. Yet, there is still a fair number of respondents from other ethnic.

Table 4.2.4: Campus of Study

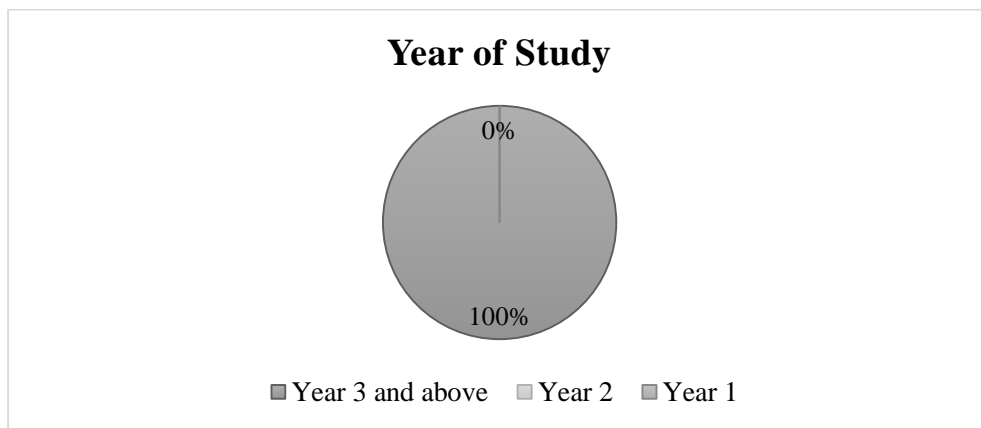
	Frequency	Percentage (%)
UTAR Kampar	107	41.96
UTAR Sungai Long	148	58.04
Total	255	100.00

Source: Developed for research

Among the 255 undergraduates, 148 of them are from UTAR Sungai Long campus, constituting 58.04 per cent of the total. While the remaining 41.96

per cent or equivalent to 107 respondents are from UTAR Kampar campus. The sample is made up of more respondents from Sungai Long campus than Kampar campus because the former has more number of accounting undergraduates. As such, the sample drawn can present the entire population more fairly.

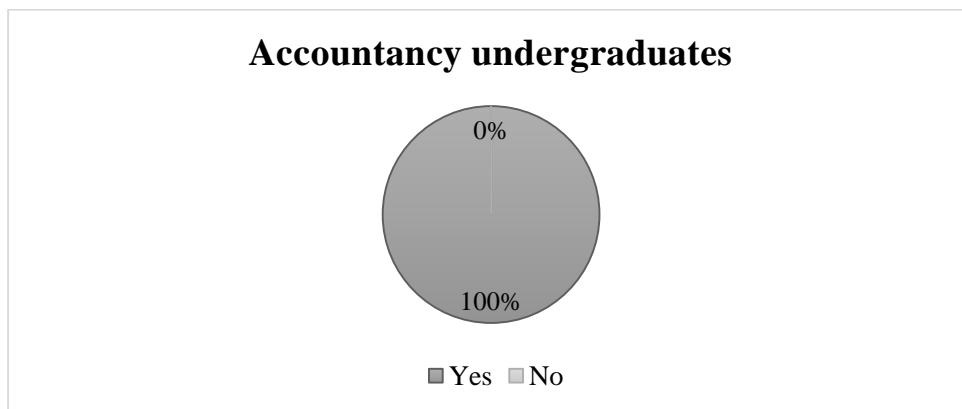
Figure 4.2.5: Year of Study of Respondents



Source: Developed for research

Figure 4.2.5 reports the frequency and percentage of the respondents' year of study. As the target respondents of this research are final year undergraduates, all the respondents are in their final year of study (i.e.: Year 3 and above), accounting for 100 per cent of the total sample size.

Figure 4.2.6: Course of Study of Respondents



Source: Developed for research

Figure 4.2.6 sets out the frequency and percentage of the respondents' course of study. 100 per cent of the total sample or equivalent to 255 of the respondents are undergraduates who are currently pursuing their tertiary education in accounting course since the target respondents of this research are accountancy undergraduates.

Table 4.2.7: Taking of Ethics-related course

	Frequency	Percentage (%)
Yes	226	88.63
No	29	11.37
Total	255	100.00

Source: Developed for research

The frequency and percentage of respondents taken ethics-related course is portrayed in Table 4.2.7. 226 respondents have taken ethics-related course, while 29 of them have not taken ethics-related course. Hence, the above table comprehensibly tells of the majority of respondents (88.63 per cent of them) have taken ethics-related course.

4.2.2 Central Tendencies Measurement of Constructs

Table 4.2.8: Central Tendencies Measurements

Variable	Construct	Items	Mean	Standard Deviation
IV1	Magnitude of Consequences	MC1	3.9490	0.5410
		MC2	3.8314	0.6075
		MC3	4.1765	0.6308
		MC4	3.9098	0.7013
IV2	Social Consensus	SC1	3.5098	0.9593

		SC2	3.3961	1.0253
		SC3	3.4588	0.9121
		SC4	3.4627	0.9209
		SC5	3.5412	0.9907
IV3	Proximity	PX1	3.7059	0.8894
		PX2	3.5137	0.8028
		PX3_recoded	3.2000	0.7705
IV4	Fear of Retaliation	FR1	3.8745	0.8511
		FR2	3.8431	0.8688
		FR3	3.9961	0.7862
		FR4	3.6706	0.9808
		FR5	3.7882	0.9062
DV	Whistleblowing Intention	WI1	3.7216	0.7562
		WI2	3.7529	0.7409
		WI3	3.8431	0.6866
		WI4	3.4157	0.8417

Source: Developed for research

Table 4.2.8 explains the measurement of central tendencies for all items of the constructs. The mean for MC ranges from 3.8314 to 4.1765. The mean values indicate that majority of the respondents feel a sense of seriousness with the items in this variable. SC ranges from 3.3961 to 3.5412. Most of the respondents are slightly agree with the items in this variable. PX ranges from 3.2000 to 3.7059. Generally, respondents somewhat agree with the questions asked in this variable. FR ranges from 3.6706 to 3.9961. The items in this variable are moderately agreed by most respondents. WI ranges from 3.4157 to 3.8431. This points out that majority has mild intention to whistle blow.

The standard deviation for all items are also clearly exhibited in Table 4.2.8. The standard deviation for MC ranges from 0.5410 to 0.7013, SC ranges

from 0.9121 to 1.0253, PX ranges from 0.7705 to 0.8894, FR ranges from 0.7862 to 0.9808 and WI ranges from 0.6866 to 0.8417. The highest value of standard deviation was found in SC2 with a value of 1.0253, while the lowest value, 0.5410 lied in MC1.

4.3 Scale Measurement

4.3.1 Reliability Test

Table 4.3.1: Reliability Test

Variables	Constructs	Number of items	Cronbach's alpha value
IV1	Magnitude of Consequences	4	0.6937
IV2	Social Consensus	5	0.8867
IV3	Proximity	3	0.7523
IV4	Fear of Retaliation	5	0.7762
DV	Whistleblowing Intention	4	0.8011

Source: Developed for research

Table 4.3.1 revealed the reliability of data. The variable with highest alpha value, 0.8867 is SC. This signifies that the data of this variable is highly reliable. Nevertheless, MC scored the lowest alpha value, 0.6937. Based on Rahimnia & Hassanzadeh (2013) suggested that a minimum Cronbach's alpha value of 0.6 is satisfactory, the reliability test for this study still passed.

4.3.2 Normality Test

Table 4.3.2: Normality Test

Construct	Items	Skewness	Kurtosis
	MC1	-0.0400	0.4240

Magnitude of Consequences	MC2	-0.1124	0.0569
	MC3	-0.1566	-0.5692
	MC4	-0.2187	-0.1357
Social Consensus	SC1	-0.1495	-0.7025
	SC2	-0.3686	-0.4382
	SC3	-0.0654	-0.6728
	SC4	-0.1031	-0.4397
	SC5	-0.2742	-0.5862
Proximity	PX1	-0.5369	0.2413
	PX2	-0.1830	-0.4440
	PX3_recoded	-0.1520	0.4685
Fear of Retaliation	FR1	-0.8383	0.9070
	FR2	-0.8882	0.8233
	FR3	-0.6790	0.3796
	FR4	-0.6874	0.1122
	FR5	-0.5284	0.0220
Whistleblowing Intention	WI1	0.1819	-0.6932
	WI2	-0.3884	0.0629
	WI3	-0.0083	-0.4277
	WI4	0.2881	-0.4826

Source: Developed for research

Table 4.3.2 presents the result of normality test, in terms of skewness and kurtosis value. Overall, the skewness and kurtosis for all items passed the required benchmark of ± 3.00 . The highest skewness and kurtosis value lied in items WI1 and FR1 with 0.1819 and 0.9070 respectively. The lowest skewness and kurtosis value is -0.8882 and -0.7025, found in FR2 and SC1 respectively. Since the normality of the data is verified, MLR can be carried out.

4.4 Inferential Analysis

4.4.1 Pearson Correlation Coefficient

Table 4.4.1: Pearson Correlation Coefficient Matrix

Variables	WI_AVG	MC_AVG	SC_AVG	PX_AVG	FR_AVG
WI_AVG	1.0000				
MC_AVG	0.2919 <.0001	1.0000			
SC_AVG	0.4358 <.0001	0.3465 <.0001	1.0000		
PX_AVG	0.3077 <.0001	0.1514 0.0155	0.3438 <.0001	1.0000	
FR_AVG	0.2669 <.0001	0.2743 <.0001	0.3140 <.0001	0.2571 <.0001	1.0000

Source: Developed for research

Table 4.4.1 illustrates the correlation between the variables through Pearson Correlation Coefficient analysis. In overall, the variables is moderately correlated since the correlation value falls within the range between 0.2669 and 0.4358. The strongest correlation exists between SC_AVG and WI_AVG, while the weakest correlation is found between FR_AVG and WI_AVG with $r = 0.4358$ and 0.2669 respectively. The variables are significantly correlated as p-value is less than 0.05.

Furthermore, the IVs studied does not involve any multicollinearity problem as the correlation value is less than 0.90.

4.4.2 Multiple Linear Regression (MLR)

Table 4.4.2: Model Summary

Model	R	R-square	Adjusted R-square	Standard error of Estimate
1	0.4963	0.2463	0.2342	0.52520

Source: Developed for research

Table 4.4.2 displayed the R-square value for this research model. A r-square value of 0.2463 depicts that the four IVs selected for this study are able to explain 24.63% of the determinants affecting whistleblowing among accounting undergraduates. Yet, the remaining 75.37% of the changes is affected by factors that are not considered in this study. Similar past studies also achieved a range of r-square from 0.192 to 0.282 (Shawver, 2011; Kennett et al., 2011; Mustapha & Siaw, 2012).

Table 4.4.3 Analysis of Variance (ANOVA)

	Sum of Square	Df	Mean Square	F	Pr > F
Model	22.5317	4	5.6329	20.42	<.0001
Error	68.9599	250	0.2758		
Total	91.4916	254	5.9087		

Source: Developed for research

Table 4.4.3 sets out the F-value for this research study. F-value of this study is valued at 20.42 with p-value <.0001 (which is less than 0.05). This finding is meaningful that the DV has a significant relationship with at least one of the four IVs. Hence, this has proven that the research model is fit for the purpose of this study.

Table 4.4.4: Parameter Estimates of Construct

Construct	df	Parameter Estimate	Standardized Estimate	Standard Error	t	Pr > t
Intercept	1	1.3899	0	0.3185	4.36	<.0001
MC_AVG	1	0.1706	0.1368	0.0743	2.30	0.0225
SC_AVG	1	0.2291	0.3048	0.0472	4.86	<.0001
PX_AVG	1	0.1412	0.1583	0.0529	2.67	0.0081
FR_AVG	1	0.0872	0.0930	0.0560	1.56	0.1203

Source: Developed for research

Table 4.4.4 describes the significance of relationship between the multiple IVs with a single DV. The p-value for MC, SC and PX are less than 0.05, implying that those IVs are significantly related with WI. However, the relationship between FR and WI is insignificant since the p-value is 0.1203, greater than 0.05.

With that, the MLR equation for this model is formulated as follow:

$$WI = 1.3899 + 0.1706 MC + 0.2291 SC + 0.1412 PX + 0.0872 FR$$

4.5 Conclusion

The chapter analyses the sample characteristics, scale measurement and inferential analysis of data for this research. The ensuing chapter will explicate the empirical findings, set out the limitations of study with recommendations provided and finally, the implications of the study.

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

5.0 Introduction

The previous chapter sets out the interpretation and analysis of data collected. This chapter will summarize the data analyzed to discuss whether the hypotheses are well supported. The study's implications, limitations together with the recommendations will also be covered in this chapter.

5.1 Summary of Statistical Analysis

5.1.1 Summary of Descriptive Analysis

5.1.1.1 Demographic Profile

There are a total of 255 final year accounting undergraduates took part in this study. Of the 255 respondents, male comprised of 33.33 per cent and female comprised of 66.67 per cent. Furthermore, majority of the respondents are undergraduates in their early of 20s, aged 20 to 22. Although majority (95.29 per cent) of the respondents are Chinese, there is a fair number of respondents from different ethnics. Undergraduates from UTAR Kampar campus accounted for 41.96 per cent of the sample, while 58.04 per cent are from Sungai Long campus. 100 per cent of the respondents are accounting undergraduates in their final year of study. Additionally, 88.63 per cent of respondents have undergone ethics-related course, but the remaining 11.37 per cent have not.

5.1.1.2 Central Tendencies Measurement

The minimum and maximum of mean and standard deviation for respective items of construct is summarized as in Table 5.1.1.

Table 5.1.1: Summary of Mean and Standard Deviation

	Constructs	Mean		Standard Deviation	
		Lowest	Highest	Lowest	Highest
IV1	Magnitude of Consequences	MC2 (3.8314)	MC3 (4.1765)	MC1 (0.5410)	MC4 (0.7013)
IV2	Social Consensus	SC2 (3.3961)	SC5 (3.5412)	SC3 (0.9121)	SC2 (1.0253)
IV3	Proximity	PX3_recoded (3.2)	PX1 (3.7059)	PX3_recoded (0.7705)	PX1 (0.8894)
IV4	Fear of Retaliation	FR4 (3.6705)	FR3 (3.9961)	FR3 (0.7861)	FR4 (0.9808)
DV	Whistleblowing Intention	WI4 (3.4157)	WI3 (3.8431)	WI3 (0.6866)	WI4 (0.8417)

Source: Developed for research

5.1.2 Summary of Scale Measurement

Table 4.3.1 lists out the constructs' Cronbach's alpha. All the alpha values exceeds 0.7, except MC having an alpha value of 0.6937. However, the data is still reliable as Churchill stated that an alpha value of 0.6 is also acceptable. Specifically, the Cronbach's alpha for SC and WI achieved higher than 80% which means the reliability of data is very good. Table 4.3.2 provides details on the normality of data. The skewness and kurtosis of all the items range from -3.00 to +3.00, stipulating that normal distribution of data is achieved.

5.1.3 Summary of Inferential Analysis

Table 5.1.2 summarizes the results of Pearson Correlation Coefficient analysis and MLR analysis. Two important information, namely standardized estimate and p-value are extracted and clearly displayed as follow:

Table 5.1.2 Summary of Inferential Analysis (Pearson Correlation Coefficient)

Pearson Correlation Coefficients Matrix	
	WI_AVG
MC_AVG	0.29188 <.0001
SC_AVG	0.43581 <.0001
PX_AVG	0.30766 <.0001
FR_AVG	0.26690 <.0001

Source: Developed for research

Table 5.1.3: Summary of Inferential Analysis (Multiple Linear Regression)

Construct	Hypothesis	Standardized Estimate	Pr > t
MC	There is a significant relationship between MC and WI.	0.13678	0.0225
SC	There is a significant relationship between SC and WI.	0.30480	<.0001
PX	There is a significant relationship between PX and WI.	0.15825	0.0081
FR	There is a significant relationship between FR and WI.	0.09301	0.1203

Source: Developed for research

5.2 Discussions of Major Findings

Table 5.2.1 describes the correlation and significance of the relationship between each IV and DV. The hypotheses developed are then tested to prove whether they are supported (as shown in table 5.2.2).

As the general rule applies, when $p\text{-value} < 0.05$, H_0 is rejected and H_1 is accepted. The hypothesis is, hence, supported.

Table 5.2.1: Description of Relationship

	Hypothesis	Significance Level	Correlation	Result
H ₁	There is a significant relationship between MC and WI.	<.0001	0.29188	There is a significant relationship between MC and WI. The correlation between them is weak.
H ₂	There is a significant relationship between SC and WI.	<.0001	0.43581	There is a significant relationship between SC and WI. The correlation between them is moderate.
H ₃	There is a significant relationship between PX and WI.	<.0001	0.30766	There is a significant relationship between PX and WI. The correlation between them is moderate.
H ₄	There is a significant relationship	<.0001	0.26690	There is a significant relationship between FR and WI. The

	between FR and WI.			correlation between them is weak.
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Source: Developed for research

Table 5.2.2: Summary of Hypothesis Testing

	Hypothesis	Standardized Estimate	Significance Level (Pr > t)	Result
H ₁	There is a significant relationship between MC and WI.	0.13678	0.0225	Reject H ₀ . Hypothesis is supported.
H ₂	There is a significant relationship between SC and WI.	0.30480	<.0001	Reject H ₀ . Hypothesis is supported.
H ₃	There is a significant relationship between PX and WI.	0.15825	0.0081	Reject H ₀ . Hypothesis is supported.
H ₄	There is a significant relationship between FR and WI.	0.09301	0.1203	Do not reject H ₀ . Hypothesis is not supported.

Source: Developed for research

5.2.1 Magnitude of Consequences (MC)

From the table above, p-value for the relationship between MC and WI is 0.0225 which is less than 0.05. Thus, the relationship between MC and WI is significant. This result has a consistent findings with few past studies such as Mustapha and Siaw (2012), Wang et al. (2015), Arnold et al. (2013) and Ballantine (2002).

The consequences of a moral issue must be serious enough to establish consideration of response by an individual (Curtis, 2006). Just like an auditor who is a potential whistleblower also takes materiality into consideration before taking any action. Therefore, the degree of seriousness of the consequences of a wrongdoing will affect the students' intention to whistle blow. When a wrongdoing will lead to a large negative impact on others such as endangering one's life, threatening one's safety, students tend to perceive it as unethical and hence, their WI inflates. On the other hand, students feel not important or not worthy of whistleblowing if the consequences of wrongdoing are not serious at all.

5.2.2 Social Consensus (SC)

SC has a significant relationship with WI. Past studies examining the same hypothesis also generates similar findings. For example, Shawver and Clements (2011), Sweeney and Costello (2009), Ballantine (2002), and Clements and Shawver (2011).

The result generated suggests that undergraduates often consider the opinion of people surrounding them when intending to whistle blow. Generally, these are the important people whose opinion is valued by the students such as family and friends. When these individuals are agree with and think that the undergraduates should whistle blow, undergraduates will be inclined to judge whistleblowing as a moral and ethical action, and thus the WI of undergraduates also increases. In contrast, if the society does not agree with whistleblowing, undergraduates will feel ambiguous and demotivated, then reduce the WI.

Nevertheless, this result also contradicts with findings of Schmidtke (2007) and Musbah et al. (2016) that SC is insignificant with WI.

5.2.3 Proximity (PX)

The significant relationship between PX and WI is empirically supported with p-value equals to 0.0081. This outcome is in line with the findings of few past researches including Lincoln and Holmes (2011), Carlson et al. (2009), and Shawver and Clements (2011).

PX affects the WI among undergraduates. If the students have a close and intimate relationship with the victim of a wrongdoing, the probability of whistleblowing is greater. People usually show more care to people who are physically, psychologically and culturally close to them such as family and friends than strangers who are distant. Students will have stronger feeling of empathy and pity if people close to them is adversely impact by a wrongdoing. There is a higher tendency to whistle blow since the victim of a wrongdoing is someone they care about. Conversely, the result is inconsistent with results of Wang et al. (2015) and Mencl and May (2009).

5.2.4 Fear of Retaliation (FR)

The result revealed that FR and WI is insignificantly correlated since the p value is 0.1203. Thus, null hypothesis is not rejected. This finding opposes results of similar past studies such as Kennett et al. (2011), Elias and Farag (2015), Fatoki (2013), Cassematis & Wortley (2013) and Latan et al. (2016). These past studies concluded that FR negatively correlates with WI.

However, retaliation does not necessarily result in a weaker intention of whistleblowing. According to Miceli and Near (1985), whistleblowers will

blow the whistle if they believe that reporting the wrongdoing will bring a positive impact, even though they might be suffering from retaliation. The result indicates that undergraduates are still willing to whistle blow if the societal benefits can compensate the personal cost of whistleblowing. Furthermore, whistleblowers will choose to whistle blow when there is no other alternative available (Brown, 2008). Under such circumstances, it is possible that undergraduates will intent to whistle blow. In fact, retaliations appear to be more encouraging external whistleblowing than deterring whistleblowing (Rehg et al., 2008). This finding expresses highly of the moral compass of the respondents, so it appears to be a "good news" to a certain extent.

5.3 Implications of the Study

5.3.1 Theoretical Implications

This study has identified some factors that have significant relationship with intention of whistleblowing. MC, SC and PX which are the constructs under the Moral Intensity Model have been empirically proven that they are significant predictor of WI. However, FR, another situational variable added into this conceptual framework is found insignificantly associated with WI.

Furthermore, this study resolved the problem of lack of theoretical model in studying whistleblowing issue. With an adjusted R-square of 0.2342, this research, studying 3 constructs of Moral Intensity, proves that Moral Intensity Model is an appropriate theoretical model used to study ethical issue such as WI. Similar research by Shawver (2011), studying all 6 constructs of Moral Intensity only managed to achieve an adjusted R-square of 0.192 only.

This study adds to the scarce whistleblowing research in a Malaysian undergraduate's context. Related researches have been repeatedly conducted on accounting professionals and working adults. This study is beneficial and constructive to future researchers who wish to explore the students' whistleblowing issue in depth.

5.3.2 Managerial Implications

SC is found to be the factor that has the strongest relationship with WI among the four IVs studied, represented by a correlation coefficient of 0.43581. This suggests that support and agreement from family and friends to whistle blow really has a significant effect on WI. Thus, family and friends should also be told about the importance of their agreement and support to a potential whistleblower. Particularly, the idea that whistleblowing is an ethical behaviour should be instilled into their minds. Therefore, they will agree and provide support when an individual faces a whistleblowing dilemma.

MC is also one of the determinants of WI among undergraduates. Ethics educators should provide advice and guidance to undergraduates to ensure they are sensitive towards MC. Specifically, it is important to educate and stress on the possible negative consequences of each wrongdoing so that undergraduates are aware of seriousness of each wrongdoing and then trigger their intention to whistle blow.

Since PX also plays a role in the undergraduates' propensity of whistleblowing, ethics educator should also educate undergraduates the possibility that a wrongdoing may also have an impact on people who they perceived as proximal. Otherwise, undergraduates do not see a reason to

whistle blow. When they are able to foresee the potential victims of a wrongdoing, especially when the wrongdoing involves people whom he or she has a close relationship with, it will encourage this group of future accountants and auditors to whistle blow.

5.4 Limitations of the Study

Although this study has contributed theoretically and practically, the inherent limitations restrict its applicability in every whistleblowing issue. First of all, a sample of accounting undergraduates from a private university in Malaysia is drawn to represent the population. This will limit the generalization of empirical results to the entire population of Malaysian accounting undergraduates. In addition, this study is conducted among accounting undergraduates, so the major findings cannot be used to generalize other groups of individuals who are likely to face whistleblowing dilemma.

Secondly, socially desirable bias. Respondents are required to provide a hypothetical response by imagining an existence of whistleblowing dilemma. Like other researchers, we made a general assumption that the responses given by the participants would reflect their personal values and intention. However, it is inevitable that some respondents may have answered the questions based on expectations about the third party's personal values and intention. In other words, they would provide what they believe to be the correct and ethical response.

Thirdly, the DV for this study is WI, rather than actual whistleblowing behaviour. In fact, Patel (as cited by Salleh & Yunus, 2015) stated that studies that are based on real-life whistleblowing cases in a Malaysian context are predominantly not

existent. Thus, this study limits the applicability in predicting actual whistleblowing behavior because after all, intention is a just a probability to act.

Furthermore, the study is a cross-sectional type of study. The collection of data is conducted at one particular period of time and thus, it is unable to measure the changes in students' perception over the time.

Lastly, the inherent limitation to include all possible variables that influence WI. King, Near and Miceli (as cited in Ahamd et al., 2012) acknowledged that whistleblowing is a function of many individual, organizational, demographic and situational variables. Yet, the study explored only on certain situational variables and failed to provide a more complement study of factors affecting WI.

Yet, the limitations mentioned above are well-acknowledged and do not affect the significance of findings presented earlier. This section serves as a reference for future researchers who wish to further explore the whistleblowing issue in other context.

5.5 Recommendations for Future Research

To address the problems mentioned above, future researchers may invite undergraduates from more number of public as well as private universities to participate in similar study. Besides that, the target respondents could be expanded to a broader group of individuals with higher possibility of facing whistleblowing dilemma, such as trainee accountants, senior accounting professionals and public sector employees. This is because, different group of respondents possess different personal responsibility and bear different personal costs of whistleblowing, which will vary the propensity of whistleblowing (Brennan & Kelly, 2006).

This study employed a survey instrument to investigate WI among undergraduates. Due to the lack of experience, employing such research instrument might increase the difficulty to capture the contextual complexities of real life whistleblowing dilemma. More qualitative and interpretative research instruments such as scenario-based vignettes and case studies would be able to provide more reliable findings with potentially higher quality data sources (Brennan & Kelly, 2006).

A longitudinal study would be a better approach to address the changes in perception over the time. For example, studying the intention of students possibly since their freshman year until graduation (Mustapha & Siaw, 2012). Also, participants' response could be collected more than once, before observance of any wrongdoing and after observance. The differences exist between non-reporting observers and whistleblowers would then reveal what influences the decision of whistleblowing (Cassebatis & Wortley, 2012).

Although there is no study that can explore all factors that play a role in WI, further studies can still be more complement by examining the potential impact of individual variables, situational variables and organizational variables on the WI of accounting students.

5.6 Conclusion

This study has contributed by exploring motivators of WI. It is empirically evident that MC, SC and PX have significant influence on students' intention of whistleblowing. However, FR might not have significant influence on their whistleblowing propensity.

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Appendix A*Summary of Past Empirical Studies*

Study	Country	Data	Major Findings
Erkmen et al. (2014)	Turkey	Three-scenario questionnaire of 116 accounting professionals in Turkey.	Respondents have mild tendency to blow the whistle on average.
Kennett et al. (2011)	United States	Case-questionnaire survey of 81 accounting majors in two senior-level accounting courses at a regional Mid-western university.	75% of the participants tend to blow the whistle, but none were certain they would blow the whistle.
Mustapha and Siaw (2012)	Malaysia	Questionnaires of 150 final year accounting students in a public university as their respondents. However, only 105 questionnaires were returned and usable.	Majority appear to understand the importance of whistleblowing and took a relatively moderate approach towards willingness to whistle blow.
Fatoki (2013)	South Africa	Questionnaires collected from a total of 219 out of 250 final year accounting students from two different universities in Gauteng province in South Africa.	Most of the respondents regarded whistleblower as a hero and agreed the importance of whistleblowing.
Alleyne et al. (2013)	Barbados	Self-administered questionnaire of 500 accounting staff from organizations in Barbados. Only 236 were usable.	Accountants were unlikely to blow the whistle.
Mustapha and Siaw (2012)	Malaysia	Questionnaires of 150 final year accounting students in a public university. However, only 105 questionnaires were returned and usable.	Seriousness of the questionable act is significantly related to the possibility of blowing the whistle.
Wang et al. (2015)	China	Online survey of 173 Chinese software engineers.	Magnitude of consequences have direct effect on the employees' willingness to report bad news.
Pillay et al. (2012)	South Africa	Total of 506 questionnaires were distributed to 250 senior, middle and lower level management/administration personnel from five National Government departments via personal delivery.	The impact of immoral or illegal activity is greater, the intention to blow the whistle is greater.

Ballantine (2002)	New Zealand	Questionnaire with three ethical scenarios to 45 Malaysian and 82 New Zealand undergraduate marketing students.	Magnitude of consequences is the most consistent predictor of ethical intentions.
Arnold et al. (2013)	United States	Questionnaires with vignettes to 71 non Big-4 accountants, 32 senior-level auditors from Big-4 firm and 43 internal auditors.	Magnitude of consequences affect ethical intentions.
Sweeney and Costello (2009)	Ireland	Questionnaires collected from 191 third year business students of which 104 are accounting students and 87 are non-accounting students.	Social consensus has the strongest relationship with the ethical decision making.
Shawver and Clements (2011)	United States	Scenario based questionnaires of the 957 certified public accountants, 192 agreed to participate and 171 usable responses are collected.	Societal consensus as a factor to be considered by accountants when deciding to whistle-blow.
Schmidtke (2007)	United States	Survey data were collected from 223 non-supervisory employees of a restaurant chain.	Social consensus has insignificant relationship with reporting theft.
Chen and Lai (2014)	Taiwan	Scenario-based online questionnaires of 533 employees from manufacturing, service and public sector.	There is no significant relationship between social pressure and whistleblowing intention.
Musbah et al. (2016)	Libya	Questionnaire including four different ethical scenarios of 229 management accountant.	Social consensus has limited significance to ethical intention.
Carlson et al. (2009)	United States	Questionnaires collected from of 337 upper-level college students from a large southern university.	Proximity of an individual and the victim has positive relationship with the perceived ethicality of the act involved.
Wang et al. (2015)	China	Online survey of 173 Chinese software engineers.	Proximity has insignificant relationship with bad news reporting intention.
Lincoln and Holmes (2011)	Canada	Anonymous computer survey of 812 students attending a service academy.	Proximity has moderate relationship with moral intention.
Mencel and May (2009)	United States	Vignette-based questionnaires of 93 human resource professionals from Midwestern.	Proximity does not have a relationship with ethical decision making.

Kennett et al. (2011)	United States	Case-questionnaire survey of 81 accounting majors in two senior-level accounting courses at a regional Mid-western university.	Personal financial costs variable is negatively correlated with the whistleblowing intention.
Elias and Farag (2015)	United States	Survey of 293 senior undergraduate and graduate accounting majors enrolled in Auditing courses in two large AACSB-accredited universities.	Threat of retaliation had a negative relationship with the likelihood of whistleblowing.
Fatoki (2013)	South Africa	Questionnaires collected from a total of 219 out of 250 final year accounting students from two different universities in Gauteng province in South Africa.	Whistleblowing intention weakens with a stronger threat of retaliation.
Cassematis and Wortley (2013)	Australia	4-question survey consisted of vignettes, free text response options and categorical responses to employees from 118 Australian public sector organizations.	Fear of reprisals contributes to the decision of wrongdoing observer to remain silent.
Latan et al. (2016)	Indonesia	Online survey on 256 Indonesian public accountants worked in Big 4 and non-Big 4 audit firms.	Personal cost of reporting negatively affect the auditors' intention to blow the whistle.


Appendix B*Operationalization of model variables*

Variable	Item	Description	Measurement	Sources
Magnitude of consequences	MC1	Falsifying financial statements to obtain a RM100,000 bank loan.	Five-point Likert scale, measuring seriousness.	(Baird, Zelin, & Olson, 2016)
	MC2	Underreporting sales to pay RM100,000 less on taxes.		
	MC3	Stealing RM100,000 cash from the company by diverting portion of company sales receipt for yourself.		
	MC4	Receiving kickbacks (bribe) from company's biggest supplier for purchases made.		
Social consensus	SC1	My peer would strongly approve of my whistleblowing.	Five-point Likert scale, measuring agreeableness.	(Trongmateerut & Sweeney, 2013)
	SC2	Most people who are important to me think that I should whistle-blow.		
	SC3	Most people whose opinion I value would approve of my decision to whistle-blow.		
	SC4	If the people in my life witness any wrongdoings, they will whistle-blow.		
	SC5	The people in my life whose opinion I value would strongly approve of my decision to whistle-blow.		
Proximity	PX1	I feel for the victim of an illegal, immoral or illegitimate practice in an organization.	Five-point Likert scale, measuring agreeableness.	(Carlson, Kacmar, & Wadsworth, 2009)
	PX2	I empathize with the victim of an illegal, immoral or illegitimate practice in an organization.		
	*PX3	I do not feel close to the victim of an illegal, immoral or illegitimate practice in an organization.		
Fear of retaliation	FR1	I was afraid the wrongdoer would take action against me.	Five-point Likert scale, measuring agreeableness.	(Brown et al., 2008)
	FR2	I was afraid the organization would take action against me.		
	FR3	I didn't want to get anyone into trouble.		
	FR4	I didn't want to embarrass the organization.		
	FR5	It would have been too stressful to report it.		
	WI1	You will blow the whistle.		

Whistleblowing intention	WI2	You will not ignore the wrongdoing.	Five-point Likert scale, measuring agreeableness.	(Chen & Lai, 2014)
	WI3	You will not keep silent.		
	WI4	You will not choose to leave the organization.		

Appendix C

Survey Permission Letter



UNIVERSITI TUNKU ABDUL RAHMAN
Wholly Owned by UTAR Education Foundation (Company No. 578227-M)

21st March 2017

To Whom It May Concern,

Dear Sir/Madam

Permission to Conduct Survey

This is to confirm that the following students are currently pursuing their *Bachelor of Commerce (Hons) Accounting* program at the Faculty of Business and Finance, Universiti Tunku Abdul Rahman (UTAR) Perak Campus.

I would be most grateful if you could assist them by allowing them to conduct their research at your institution. All information collected will be kept confidential and used only for academic purposes.

The students are as follows:

<u>Name of Student</u>	<u>Student ID</u>
Chan Yee Chin	13ABB03934
Mabel Ding Cheau Qi	14ABB06789
Tham Mun Yan	13ABB06544
Waynnie Goh Yu-Sinn	13ABB06276
Wong Tze Min	13ABB04100

If you need further verification, please do not hesitate to contact me.

Thank you.

Yours sincerely,

21/3/2017

MS THERESA WONG LAI HAR
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Appendix D

Survey Questionnaire



Universiti Tunku Abdul Rahman

Factors Affecting Whistleblowing Intention: An Empirical Study among Final Year Accountancy Undergraduates.

Survey Questionnaire

Dear Respondent,

We are final year undergraduate students of Bachelor of Commerce (HONS) Accounting, Universiti Tunku Abdul Rahman (UTAR). The purpose of this survey is to conduct a research to investigate the factors affecting whistleblowing intention among final year accountancy undergraduates. Please answer all questions to the best of your knowledge. There are no wrong responses to any of these statements. All responses are collected for academic research purpose and will be kept strictly confidential.

Thank you for your participation.

Instructions:

- 1) There are THREE (3) sections in this questionnaire. Please answer ALL questions in ALL sections.
 - 2) Completion of this form will take you less than 5 minutes.
 - 3) The contents of this questionnaire will be kept strictly confidential.
-

Voluntary Nature of the Study

Participation in this research is entirely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. There is no foreseeable risk of harm or discomfort in answering this questionnaire. This is an anonymous questionnaire; as such, it is not able to trace response back to any individual participant. All information collected is treated as strictly confidential and will be used for the purpose of this study only.

I have been informed about the purpose of the study and I give my consent to participate in this survey.

YES ()

NO ()

Note: If yes, you may proceed to next page or if no, you may return the questionnaire to researchers and thanks for your time and cooperation.

General Information

Dear respondent,

You are expected to answer the following statements by imagining you are aware of an illegal, immoral or illegitimate practice in an organization.

This study is to determine the factors affecting whistleblowing intention (Magnitude of Consequences, Social Consensus, Proximity, and Fear of Retaliation) among final year accountancy undergraduates.

Whistleblowing is defined 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."

Definitions of the factors affecting whistleblowing intention are provided as follow:

Magnitude of consequences: "The sum of the harms (or benefits) done to victims (or beneficiaries) of the moral act in question."

Social consensus: "The degree of social agreement that a proposed act is evil (or good)."

Proximity: "The feeling of nearness (social, cultural, psychological, or physical) that the moral agent has for victims (beneficiaries) of the evil (beneficial) act in question."

Fear of Retaliation: "Fear of undesirable action taken against a whistleblower in direct response to the whistleblowing."

We invite you to fill up this survey questionnaire so that we can have better understanding on factors affecting whistleblowing intention among final year accountancy undergraduates.

Thank you.

Regards,

CHAN YEE CHIN (yeechin_chan@yahoo.com)

MABEL DING CHEAU QI (mabelding94@outlook.com)

THAM MUN YAN (munyan3721@gmail.com)

WAYNNIE GOH YU-SINN (waynniegoh@hotmail.com)

WONG TZE MIN (tzemin1231@hotmail.com)

Final Year Project group members

Section A: Demographic Profile

Please place a tick “√” to a box for your selection for all items. Thank you.

1. Gender:

Male

Female

2. Age:

Below 20 20 – 22 23 – 25 25 and above

3. Ethnicity:

Malay Chinese Indian

Others, please indicate: _____

4. Studying campus:

UTAR Kampar campus

UTAR Sungai Long campus

5. Current year of study:

Year 1

Year 2

Year 3 and above

6. Are you taking accounting course currently?

Yes

No

7. Have you taken any ethics-related course?

Yes

No

Section B: Factors affecting whistleblowing intention among final year accountancy undergraduates

Factor 1: Magnitude of Consequences

The statements stated in this component are related to Magnitude of Consequences. Given that you are aware of the following wrongdoings, please indicate how serious you feel it on a 5-point Likert scale [(1) = not serious at all; (2) = not very serious; (3) = somewhat; (4) = very serious and (5) = extremely serious].

No.	Statements	Not serious at all	Not very serious	Somewhat	Very serious	Extremely serious
MC1	Falsifying financial statements to obtain a RM100,000 bank loan.	1	2	3	4	5
MC2	Underreporting sales to pay RM100,000 less on taxes.	1	2	3	4	5
MC3	Stealing RM100,000 cash from the company by diverting portion of company sales receipt for yourself.	1	2	3	4	5
MC4	Receiving kickbacks (bribe) from company's biggest supplier for purchases made.	1	2	3	4	5

Factor 2: Social Consensus

The statements stated in this component are related to social consensus. Please circle your answer to each statement to indicate your viewpoints with 5-point Likert scale [(1) = strongly disagree; (2) = disagree; (3) = neutral; (4) = agree and (5) = strongly agree].

No.	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
SC1	My peer would strongly approve of my whistleblowing.	1	2	3	4	5
SC2	Most people who are important to me think that I should whistle-blow.	1	2	3	4	5
SC3	Most people whose opinion I value would approve of my decision to whistle-blow.	1	2	3	4	5
SC4	If the people in my life witness any wrongdoings, they will whistle-blow.	1	2	3	4	5
SC5	The people in my life whose opinion I value would strongly approve of my decision to whistle-blow.	1	2	3	4	5

Factor 3: Proximity

The statements stated in this component are related to proximity. Please circle your answer to each statement to indicate your viewpoints with 5-point Likert scale [(1) = strongly disagree; (2) = disagree; (3) = neutral; (4) = agree and (5) = strongly agree].

No.	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
PX1	I feel for the victim of an illegal, immoral or illegitimate practice in an organization.	1	2	3	4	5
PX2	I empathize with the victim of an illegal, immoral or illegitimate practice in an organization.	1	2	3	4	5
*PX3	I do not feel close to the victim of an illegal, immoral or illegitimate practice in an organization.	1	2	3	4	5

Factor 4: Fear of Retaliation

The statements stated in this component are related to fear of retaliation. Please circle your answer to each statement to indicate your viewpoints with 5-point Likert scale [(1) = strongly disagree; (2) = disagree; (3) = neutral; (4) = agree and (5) = strongly agree].

No.	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
FR1	I was afraid the wrongdoer would take action against me.	1	2	3	4	5
FR2	I was afraid the organization would take action against me.	1	2	3	4	5

FR3	I didn't want to get anyone into trouble.	1	2	3	4	5
FR4	I didn't want to embarrass the organization.	1	2	3	4	5
FR5	It would have been too stressful to report it.	1	2	3	4	5

Section C: Whistleblowing intention among final year accountancy undergraduates

The statements stated are related to overall assessment of whistleblowing intention among final year accountancy undergraduates. Please, circle your answer to each statement to indicate your viewpoints to overall assessment on whistleblowing intention with 5-point Likert scale [(1) = strongly disagree; (2) = disagree; (3) = neutral; (4) = agree and (5) = strongly agree].

When you are aware of an illegal, immoral or illegitimate practice in your organization:

No.	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
WI1	You will blow the whistle.	1	2	3	4	5
WI2	You will not ignore the wrongdoing.	1	2	3	4	5
WI3	You will not keep silent.	1	2	3	4	5
WI4	You will not choose to leave the organization.	1	2	3	4	5

You can check to make sure that all particulars are already chosen for an answer.

Thank you for your time.