

# The Theory of Planned Behaviour as a Framework for Whistle-Blowing Intentions

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## Abstract

This study adopts the Theory of Planned Behaviour as an underlying model to investigate its relevance, by examining the link between attitude, subjective norm and perceived behavioural control to account for whistle-blowing intentions. The data were analysed using a structural equation modelling (SEM) technique with the use of Partial Least Square approach (PLS). Using a sample of 262 Malaysian police officers, the analysis showed that TPB provides a sound framework for predicting both internal and external whistle-blowing intentions. Additionally, both internal and external whistle-blowing intentions are significantly influenced by attitude. Subjective norm is found to positively influence internal whistle-blowing intentions, while perceived behavioural control positively influences external whistle-blowing intentions. Hence, it is hoped that the results of this study will be a useful source of information to law makers, policy makers, institutions, management and the like in supporting whistle-blowing practices and thus enhancing accountability and strengthening good corporate governance in work places.

**Keywords:** attitude, subjective norm, perceived behavioural control, external whistle-blowing intention, internal whistle-blowing intentions

## 1. Introduction

Evidences have shown that the discovery of many accounting scandals such as in Enron, WorldCom and Tyco came to light due to whistle-blowing. Whistle-blowing is the disclosure by employees of an organization (former or current) of illegal, immoral or illegitimate practices under the control of their employers, to people or organizations with the power to take action (Near & Miceli, 1985). This is because employees are likely to be the first who witness wrongdoings in work places (Miethe & Rothschild, 1994). However, many remain silent despite their awareness. This is due to the possibility of severe reprisals by employers for disclosing their incriminated information (Liyararachchi & Alder, 2010).

Researchers have indicated that employees are important sources for detecting frauds in institutions (Park & Blenkinsopp, 2009; Micelli et al., 2008; Mak, 2007; Micelli & Near, 2005). The Global Fraud Study 2013 (2014) carried out by the Association of Certified Fraud revealed that more than 40 percent of cases were detected by a tip which accounted for more than twice the rate of other detection methods. Employees account for nearly half of all tips that lead to the discovery of fraud. KPMG Malaysia Fraud Bribery and Corruption (2014) survey also indicated that most of the fraud cases were discovered through internal tip-off (24 percent), followed by external tip-off (21 percent) and formal whistle-blowing (16 percent), accounting to 71 percent. The results were in tandem with the Global Economic Crime Survey (2014) conducted by Price Water House (PWC) that revealed 11 percent of fraud was detected through internal tip-off, 7 percent by external tip-off and the remaining 5 percent via formal whistle-blowing channel.

Despite that many praise whistle-blowers as civic heroes or saviours; many also condemn them as traitors or troublemakers. Specifically the employers, they believe that employees owe a prima facie duty of loyalty to them and therefore “cannot bite the hand that feeds them while insist on staying on the banquet” (Bowie, 1982). Disclosing any information that tarnishes image and reputation of employers is intolerable and disloyal. Even

with negative accusations, for certain quarters, whistle-blowing is something they have to do for the sake of institutional interest (Hwang et al., 2013).

In fact, the act of Whistle-blowing is not meant to cause harm but to protect and deter wrongdoings towards engaging good governance. This noble deed should be nurtured and assimilated in any institutions as an internal control mechanism to deter illegal, immoral and illegitimate activities (Patel, 2003). Due to this fact, it is important to bridge the gap between negative perceptions on whistle blowers and good governance. Understanding and addressing the antecedent factors that trigger whistle-blowing intentions would help managerial officers to flourish whistle-blowing practices in the real world.

To date, researchers have addressed many antecedent factors of whistle-blowing intentions; amongst them are human's personalities (Shawver, 2011; Liyanarachchi & Adler, 2010), organizational culture (Duska, 2012; Yekta et al., 2010; Sims & Keenan, 1998), ethical culture (Kaptein, 2011), ethical philosophies (Zakaria et al., 2015) and culture (Hwang et al., 2013). However, most of these studies failed to produce a finite set of variables to predict whistle-blowing intentions (Sim & Keenan, 1998). Nevertheless, several prior studies (Ab Ghani, 2013; Richardson et al., 2012; Park & Blenkinsopp, 2009; Zhang, 2007; Ellis & Ariel, 1999) applied the Theory of Planned Behaviour of Ajzen and Fishbein (1991) as the model in predicting whistle-blowing intention and found its propositions as a sound and success framework.

In light of the above issues and following prior studies, this study adopts the TPB propositions of which its objectives are to investigate the influence of attitude, subjective norm (the perception of relevant others) and perceived behavioural control on whistle-blowing intentions. Additionally, whistle-blowing intentions will be examined in two perspectives that are internal and external.

Even though whistle-blowing is a worldwide concern, majority of prior studies were conducted in the western countries, while local studies remained scarce. The situation motivates this study to explore the issue within the context of Malaysia as there may not be a "one size fits all" solution. Following to this, the rest of the paper is structured as follows: first, it reviews past literature before formulating hypotheses and proposing research model; second, it describes the methodology; third, the findings are presented and discussed; fourth and lastly, it concludes with consideration on the implementations of the findings, suggestion for further research and conclusion.

### *1.1 Literature Review, Hypotheses Development and Research Model*

#### *1.1.1 Application of Theory of Planned Behaviour in Predicting Whistle-Blowing Intention*

Originating in the field of social psychology, Theory of Planned Behaviour (TPB) is an extension of Theory of Reasoned Action (TRA) developed by Icek Ajzen and Martin Fishbein in 1967 (Ajzen & Fishbein, 1980). Theory of Planned Behaviour (TPB) proposes that behavioural intention is the most significant predictor of human behaviour (Ajzen & Fishbein, 1980). TPB has been utilised to study behavioural intention in a wide variety of disciplines including accounting (Ab Ghani, 2013), consumer behaviour (Sheeran, 2002; Sheppard et al., 1988), health issues (Fishbein, 1996), business ethics (Richardson et al., 2012) and education (Zakaria et al., 2012; Zhang, 2007; Cohen & Hanno, 1993).

TPB postulates that the intention to perform a behaviour is a function of three factors: attitude toward the behaviour, subjective norms, and perceived behavioural control (Ajzen & Fishbein, 1980). In this study, the behavioural intentions are internal and external whistle-blowing intentions which are the dependent variables or the focus of the study. To gain an understanding of the relationships, the study will individually address both internal and external whistle-blowing intentions and their roles with antecedent factors namely attitude, subjective norm and perceived behavioural control.

#### *1.1.2 Internal and External Whistle-Blowing Intentions*

Whistle-blowing intentions can be categorized into two classifications namely internal and external (Near & Micelli, 1995). Internal whistle-blowing intentions refer to reporting of wrongdoings to those who are in the higher hierarchy inside the institutions. Alternatively, external whistle-blowing refers to reporting of wrongdoings to audiences outside of the institution. In general, employees tend to blow the whistle internally instead of externally as the former is less risky for them (Richardson et al., 2012; Miceli & Near, 2005; Miceli et al., 2008; Rothschild & Miethe, 1999) and also less detrimental to the institution (Hassink et al., 2007). However, blowing the whistle on wrongdoings within an organization is not a widely accepted behaviour (Richardson et al., 2012) because the management may not like employees to disclose the incriminated information.

External whistle-blowing intentions on the other hand, may lead to public embarrassment, government scrutiny, hefty fines and litigation (Berry, 2004) as they do not only expose the internal wrongdoings, but also an

institution that fails to stop and correct wrongdoings by itself. According to Ab Ghani (2013), most of the employees tend to blow the whistle externally when they find that the internal audiences are of complicity with the wrongdoings; so they look for external audiences who are able to intercede. Ironically, a potential whistle blower may have a positive attitude towards whistle-blowing, seek the opinion of relevant others (Greenberger et al., 1987) and evaluate the difficulties and opportunities before blowing the whistle (Miceli, Near, & Dworkin, 2008) either to internal or external audiences.

#### 1.1.3 Attitude and Whistle-Blowing Intentions

Attitude towards whistle-blowing intention is the function of behavioural beliefs and outcome evaluations. Behavioural beliefs are determined by how one believes about the behaviour while outcome evaluations are how one associates their beliefs with certain consequences (Ajzen & Fishbein, 1980). For example, the cognition “Whistle-blowing prevents harm to organization” is a belief that links an attribute (harm prevention) with behaviour (a decision to whistle blow).

Many empirical studies support attitude as the determinant factor of whistle-blowing intention (Ab Ghani, 2013; Richardson et al., 2012; Park & Blekinsopp, 2009; Ellis & Arieli, 1999; Sims & Keenan, 1998). Ab Ghani (2013) used TPB as an underpinning theory and examined the influence of attitude on whistle-blowing intentions of 311 supervisors in Malaysian manufacturing public listed companies. Using Sequential Equation Model (SEM) with AMOS approach, he supported the theory and indicated a positive relationship between attitude and whistle-blowing intentions. Richardson et al. (2012) adopted TRA as a framework to investigate blowing the whistle against Greek Hazing among 259 respondents. They analysed the data using SEM with LISREL approach and found that the model was a sound framework for predicting whistle-blowing intentions as attitude positively influenced whistle blowing intentions.

Park and Blekinsopp (2009) employed TPB as a model linking whistle-blowing intentions and attitude of 296 Korean police officers using multiple regressions analysis. Additionally, this prior study examined whistle-blowing intentions in both internal and external perspectives. The results indicated that attitude was more likely to influence internal whistle-blowing intentions but not on external whistle-blowing intentions. Ellis and Arieli (1999) used TRA as an underpinning theory to investigate attitude on whistle-blowing intentions using regression analysis on 275 Israeli Defence Ground Forces and revealed significant relationship results. Even though Park and Blekinsopp (2009) revealed that attitude did not support external whistle-blowing intentions, we aimed to follow the proposition postulated by TPB and formulated the following hypotheses.

H1: Attitude influences internal whistle-blowing intentions.

H2: Attitude influences external whistle-blowing intentions.

#### 1.1.4 Subjective Norm and Whistle-Blowing Intentions

Subjective norm is functions of normative beliefs about one's focal behaviour and his or her motivation to comply (Ajzen & Fishbein, 1984). Normative beliefs refer to how one perceives the expectations of others who are important to them with regard to blowing the whistle. Such beliefs also include the extent of one's motivation to comply with others' expectations. In other words, it is the perceived pressure one feels to blow the whistle in accordance with others' expectations.

With regard to the whistle-blowing intentions, one might have a normative belief. For example, “How proud do you think the following people would be if you reported the wrongdoings in workplace?” The second question asks the degree of respondents' motivation to comply with the normative beliefs. For example, “How much do you care whether the following people would approve or disapprove of your reporting wrongdoing?”

Empirical studies have proven that subjective norm influenced whistle blowing intentions (Ab Ghani, 2013; Richardson et al., 2012; Park & Blekinsopp, 2009; Ellis & Arieli, 1999). However, most of these prior studies did not examine internal and external whistle-blowing intentions individually except for Park and Blekinsopp (2009). Park and Blekinsopp (2009) indicated that subjective norm has significant effects on both internal and external whistle-blowing intentions. Based on previous studies and TPB, we believe that subjective norm has significant influence on internal and external whistle-blowing intentions. As such, we develop the following hypotheses:

H3: Subjective norm influences internal whistle-blowing intentions.

H4: Subjective norm influences external whistle-blowing intentions.

### 1.1.5 Perceived Behavioural Control and Whistle-Blowing Intentions

Perceived behavioural controls are functions of belief and evaluation of control factors. According to TPB, control belief is dependent on opportunities or obstacles for one to perform a specific behaviour (Ajzen, 1991). In this study, belief in control factors refers to how one believes or perceives the difficulty of blowing the whistle. Meanwhile, evaluation of control factors refers to how one evaluates on the importance of the control factors in order for them to blow the whistle.

An example of belief in the control factor is one's belief about the organizational hindrance such as deliberately ignoring the reporting. Evaluation of control factors is associated with one's evaluation on the impossibility of correcting the wrongdoings by reporting it in the organization. Harassment and management reprisal are also the control factors of one's belief if they report and they would evaluate the consequences before blowing the whistle.

Park and Blekinsopp (2009) found that perceived behavioural control only influences whistle-blowing intentions if one blows the whistle to the internal audiences. Alternatively, no relationship is found between perceived behavioural control and whistle-blowing intentions if the whistle-blowing is presented to external audiences. Meanwhile, another study which did not differentiate between internal and external whistle-blowing indicated that perceived behavioural control has significant effects on whistle-blowing intentions (Ab Ghani, 2013). As TPB posits that perceived behavioural control influences whistle-blowing intentions and based on prior studies (Ab Ghani, 2013; Park & Blekinsopp, 2009), the following hypotheses are formulated:

H5: Perceived behavioural control influences internal whistle-blowing intentions.

H6: Perceived behavioural control influences external whistle-blowing intentions.

Figure 1 depicts the theoretical framework.

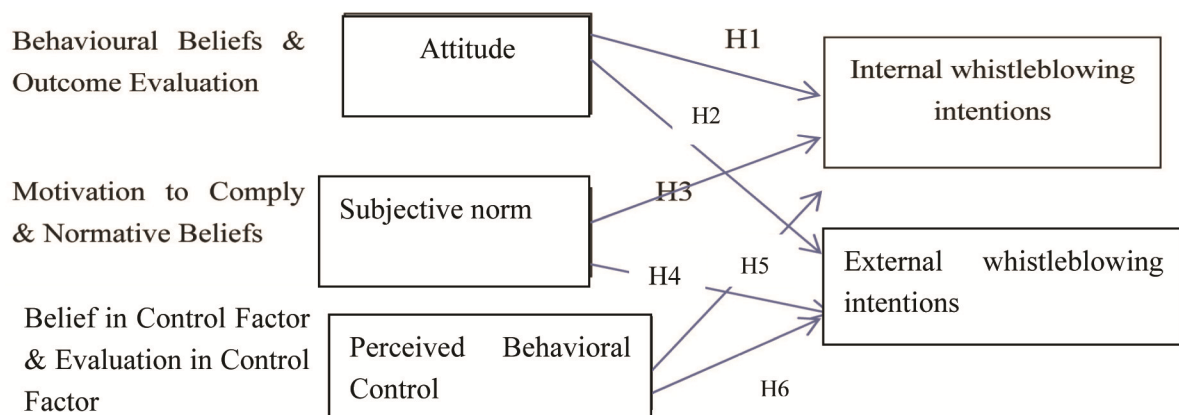


Figure 1. Theoretical framework

## 2. Method

### 2.1 Data Collection

We collected the data for this study by distributing questionnaires to police officers in a police station located in one of the 14 states in Malaysia. The survey was carried out between October and December 2015. We adapted the questionnaire of Park and Blekinsopp (2009) with some modifications to suit the local context. We chose the police officers due to their strict disciplinary work ethics and policies that require members to abide and uphold acts and regulations. With the perception that they will less likely tolerate wrongdoings, they will have the courage and sense of duty to blow the whistle. Other whistle-blowing studies also examined uniform professions namely police and army officers (Park & Blekinsopp, 2009; Ellis & Arieli, 1999).

There are about 1100 police officers in the police station. According to Krejcie and Morgan (1973), the suggested sample size for this number of population is 278. Based on this suggestion, we personally handed 300 questionnaires to a human resource officer of this police station to be distributed to police officers who will be the respondents of this study. We attached the questionnaire with a cover letter with brief explanation stating the

purpose of the study and assuring the respondents of the confidentiality and anonymity of their responses. The respondents were given a week to complete the questionnaire. After the period was over, we went to the police station and collected the questionnaires from that particular human resource officer. From 300 distributed questionnaires, 262 voluntarily completed the questionnaire corresponding to 87.3 percent of response rate.

The respondents consisted of 162 males (61.8%) and 100 females (38.2%). Hundred eighteen (118) or 45 percent were between the ages of 25 and 40 years, while 98 or 37.4 percent were aged between 41 and 55 years. Meanwhile, both categories of age of less than 25 years and more than 55 years had similar frequencies and percentages with 23 and 8.8 percent respectively. Almost 77.4 percent (205) had SPM qualification (which is equivalent to O-level) followed by 15.5 percent (41) who had diploma certificate, 4.5 percent (12) were degree graduates and 1.5 percent (4) with SRP qualification (lower certificate). In terms of year of service, 36.6 percent or 97 had less than 10 years length of service, followed by 62 (23.4%) who had services of more than 30 years, 56 or 21.5 percent had between 11 and 20 years and finally 47 or 18 percent with services between 21 and 30 years. Majority of the respondents were in the rank of constables (162 or 59.2%) followed by corporals (82 or 31.3%) and the remaining 25 or 9.5 percent were inspectors.

## 2.2 Questionnaire Design

The questionnaire consists of two sections. The first section measures the dependent variables namely internal and external whistle-blowing intentions. This section also measures the independent variables that are attitude, subjective norms and perceived behavioural control. Whistle-blowing intentions are measured using a total of eight items through the question "If you found wrongdoing in your workplace, how hard do you try to do the following?" Out of these eight items, four items measure internal whistle-blowing intentions while the remaining 4 items measure external whistle-blowing intentions. The respondent is asked to rate on a 5 point Likert-type scale from not at all (1) to very hard (5). The measurement items, means and Standard Deviations (SD) for external and internal are indicated in Table 1.

Table 1. Measurement items, means and standard deviations for internal and external whistle-blowing intentions

Whistle-blowing intentions	Items	Means (SD)
Internal	Report to the appropriate people within organization	3.54 (1.05)
	Let upper level of management know about it	3.41 (1.14)
	Tell supervisor	3.74 (1.06)
	Report to ethics officer or disciplinary committee	3.68 (1.15)
External	Report to the appropriate authorities outside the organization	2.44 (1.18)
	Use reporting channels outside of the organization	2.53 (1.15)
	Provide information to outside agencies	2.35 (1.12)
	Inform the public of it	2.31 (1.16)

Note. n = 262.

Attitude is measured by asking how true the respondents thought on the 10 statements with regard to the salient consequences of an employee's reporting of wrongdoing in an organization. The respondents are also required to assess the importance of those consequences under the question, "If you reported wrongdoing, how important do you think the following consequences will be to you?" Those ten salient consequences of an employee's whistle-blowing include prevention harm to the organization, control of corruption, enhancement of one's duty to protect the public interest, enhancement of one's duty as an employee, moral satisfaction, enhancement sustainability of organization, enhancement of one's conscience, enable employee to be a moral agent, management tool to protect organization and make people at work liable for their wrongdoing.

The statements or items for the above two questions are rated on a five-point Likert-type scale. The scale of the first question ranges from "Not true" (1) to "Very true" (5). Meanwhile, the second question is rated on the same scale from "Not very important" (1) to "Very important" (5). The results indicated that all measurement items of behavioural beliefs and evaluation outcomes were higher than 3.0, indicating that respondents' belief on whistle-blowing had positive effects and was considered important. The response to each statement given under

the first question is multiplied by each evaluation of the 10 consequences respectively. The results of measurement items, means and standard deviation for behavioural beliefs, evaluation outcomes and attitude are reported in Table 2.

Table 2. Measurement items, means and standard deviations for behavioural beliefs, evaluation outcomes and attitude

Measurement items	Behavioural beliefs (b) (SD)	Evaluation outcomes (e) (SD)	Attitude (b x e)
Prevention of harm to the organisation	3.69 (1.15)	3.00 (1.16)	11.07
Control of corruption	3.88 (1.01)	3.83 (0.98)	14.86
One's duty to protect the public interest	3.89 (0.96)	3.79 (0.97)	14.74
One's duty as an employee	3.52 (0.99)	3.45 (1.02)	12.14
Moral satisfaction	3.63 (1.08)	3.53 (1.05)	12.81
Sustainability of organization	3.89 (1.06)	3.91 (1.11)	15.21
One's conscience	3.88 (0.90)	3.89 (0.88)	15.09
Moral agent	3.94 (0.94)	3.76 (1.06)	14.81
Management tool to protect organization	3.93 (1.56)	3.99 (1.22)	15.68
Make people at work liable for their wrongdoing	3.89 (0.98)	3.77 (0.89)	14.67

Note. n = 262.

There are ten salient groups of referents: members of family, co-workers, immediate supervisor, subordinate, top management, friends, neighbours, acquaintances, public and government or policy makers. Referent people are those who can influence one's decision which is referred to as subjective norms. Subjective norm is measured by two questions. The first question measures normative beliefs (n) which refer to one's thought about the likelihood that referent people would approve or disapprove of their whistle-blowing as in "How proud do you think the following people would be if you reported wrongdoing?" For the first question, the respondents are required to rate on a five-point Likert-type scale anchored from "Not much" (1) to "Very much" (5).

The second question measures the motivation to comply (m). The motivation to comply is the perceived pressure one feels to act in accordance with others' expectations as in "How much do you care whether the following people would approve or disapprove of your reporting wrongdoing?" The respondents are asked to rate on a five-point Likert-type scale ranging from "Very little" (1) to "Very much" (5).

The normative beliefs are multiplied by the respondents' motivation to comply with the referents' demands to produce subjective norms. For the normative belief, the results showed that the top management obtained the highest score followed by members of one's family, immediate supervisors, government or policy maker, co-workers, friends, neighbours, subordinates, acquaintances and public.

Meanwhile, for the motivation to comply, the results indicated that top management had the highest followed by members of one's family, government or policy makers, immediate supervisors, friends, co-workers, subordinates, neighbours, acquaintances and public. The measurement items, means and standard deviations for normative beliefs, motivation to comply and subjective norm are shown in Table 3.

Table 3. Measurement items, means and standard deviations for normative beliefs, motivation to comply and subjective norm

Measurement items	Normative beliefs (b) (SD)	Motivation to comply (m) (SD)	Subjective norm (b x m)
Members of one's family	3.56 (1.12)	3.77 (1.25)	13.42
Co-workers	3.44 (0.88)	3.51 (0.78)	9.89
Immediate supervisor	3.51 (0.98)	3.62 (0.91)	12.71
Subordinates	3.24 (0.92)	3.33 (0.93)	10.79
Top management	3.93 (0.89)	3.89 (0.92)	9.58
Friends	3.34 (1.00)	3.55 (1.01)	11.86
Neighbours	3.27 (0.91)	3.28 (0.92)	10.73
Acquaintances	3.17 (0.99)	3.12 (0.86)	12.07
Public	3.09 (0.94)	3.10 (0.94)	15.29
Government/policy makers	3.51 (0.98)	3.72(0.97)	13.06

Note. n = 262.

Perceived behavioural control is measured using sixteen items; eight items assess the respondents' belief in control factors while the remaining eight items assess the evaluation of control factors. The eight control beliefs are statements concerning beliefs or perception about difficulties to be faced in the process of reporting. These beliefs are measured in the first question whereby the respondent is required to indicate his or her views on the question "If you are an employee reporting wrongdoing in an organization, how likely do you think the following are?" The respondent is required to rate the items on a five-point Likert-type scale ranging from "Not likely" (1) to "Very likely" (5). Meanwhile, the second question measures how the respondents evaluate the control factors in the process of reporting. In terms of evaluation, the respondent has to evaluate on the question "If you report wrongdoing, how important do you think the followings are to you?" The respondent is asked to rate on a five-point Likert-type scale ranging from "Not very important" (1) to "Very important" (5).

The belief and evaluation of control factor for each measurement item are multiplied to form perceived behavioural control. The results indicated that the range of values were from 7.18 that is organizations ignore the reporting to as high of 10.43 (he or she will be closely monitored). The results of measurement items, means and standard deviations of belief and evaluation of control factors together with perceive behavioural control are depicted in Table 4.

Table 4. Measurement items, means and Standard Deviations (SD) for belief in control, evaluation of control factors and perceived behavioural control

Measurement items	Belief in control factors (c) (SD)	Evaluation of control factor (e) (SD)	Perceived behavioural control (c x e)
The organization ignores the reporting	2.68 (0.98)	2.68 (0.98)	7.18
My reporting won't make any difference	2.96 (0.96)	3.01 (1.17)	8.91
Harassment	2.84 (0.92)	3.24 (1.13)	9.20
Demotion	3.00 (0.98)	3.21 (1.23)	9.63
Isolation	3.17 (1.12)	3.26 (1.10)	10.33
Termination	3.19 (1.03)	3.15(1.24)	10.05
Close monitoring	3.16 (1.21)	3.30 (1.04)	10.43
Breach of duty of loyalty	3.15 (0.97)	3.12 (0.97)	9.83

Note. n = 262.

### 3. Results

#### 3.1 Assessment of the Measurement Model

Using the Theory of Planned Behaviour as the theoretical model in exploring how whistle-blowing intentions are determined, we tested the model of structural relationships among these variables against our data using the Smart Partial Least Square (PLS) M2 Version 2.0 approach. We adopted a two stage analysis approach as recommended by Anderson and Gerbing (1988). In the first stage, we tested the measurement model that involves the assessment of validity and reliability of items using convergent validity, discriminant validity and reliability analysis. In the second stage, we measured the structural model by testing the hypothesized relationship. We used a bootstrapping method (1,000 resamples) to determine the significance levels for loadings, weights and path coefficients.

#### 3.2 Convergent Validity

Convergent validity is the degree of multiple items to measure whether the same concept is in agreement. We assessed the convergent validity by following what was suggested by Hair et al. (2010) through the usage of factor loadings, Composite Reliability (CR) and Average Variance Extracted (AVE). Convergent validity requires all factor loadings for items to have loadings of greater than 0.60 (Chin et al., 1997). Based on this requirement, we deleted all loadings less than the suggested value. Composite reliability values, that depict the degree to which the construct indicators indicate the latent construct, ranged from 0.893 to 0.938. These values exceeded the recommended value of 0.7 (Hair et al., 2010). The average variance extracted (AVE), reflecting the overall amount of variance in the indicators account for by the latent construct, were in the range of 0.523 and 0.771, exceeding the recommended value of 0.5 (Hair et al., 2010). Hence, the measurement model demonstrates adequate convergent validity. The results of the measurement model are indicated in Table 5.

Table 5. Results of the measurement model

Constructs	Measurement Items	Loadings	AVE	CR
Attitude	Att1	0.679	0.604	0.938
	Att2	0.812		
	Att3	0.852		
	Att4	0.733		
	Att5	0.798		
	Att6	0.788		
	Att7	0.823		
	Att8	0.788		
	Att9	0.786		
	Att10	0.700		
Perceived Behaviour Control	Pbc1	0.650	0.523	0.893
	Pbc2	0.765		
	Pbc3	0.633		
	Pbc4	0.747		
	Pbc5	0.733		
	Pbc6	0.715		
	Pbc7	0.751		
	Pbc8	0.720		
Subjective Norm	Sn2	0.808	0.632	0.939
	Sn3	0.815		
	Sn4	0.870		
	Sn5	0.801		



Internal Intentions	Whistle-blowing	Sn6	0.722	0.698	0.902
		Sn7	0.814		
		Sn8	0.784		
		Sn9	0.812		
		Sn10	0.720		
		Int1	0.762		
		Int2	0.860		
		Int3	0.892		
		Intt4	0.823		
External Intentions	Whistle-blowing	Int5	0.654	0.771	0.910
		Int6	0.861		
		Int8	0.875		

Note. AVE: Average Variance Extracted, CR: Composite Reliability.

### 3.3 Reliability Analysis

Reliability is a test of how consistently a measuring instrument measures whatever concept it is measuring (Sekaran & Bougie, 2010). The results indicated that the values of Cronbach alphas for all constructs were between 0.844 and 0.928, which exceeded the value of 0.7 as suggested by Sekaran (2003). We conclude that all the measurements are reliable. The results are shown in Table 6.

Table 6. Results of reliability test

Constructs	Measurement items	Cronbach's $\alpha$	Loading range	Number of items
Attitude	Att1, Att2, Att3, Att4, Att5, Att6, Att7, Att8, Att9, Att10	0.927	0.679-0.852	10
Subjective norm	Sn2, Sn3, Sn4, Sn5, Sn6, Sn7, Sn8, Sn9, Sn10	0.928	0.720-0.870	9
Perceived behavioural control	Pbc1, Pbc2, Pbc3, Pbc4, Pbc5, Pbc6, Pbc7, Pbc8	0.865	0.633-0.765	8
Internal whistle-blowing intentions	Int1, Int2, Int3, Int4	0.844	0.654-0.915	4
External whistle-blowing intentions	Int5, Int6, Int8	0.857	0.861-0.897	3

### 3.4 Discriminant Validity

Discriminant validity measures the degree to which items differentiate among constructs or measure distinct concepts (Cheung & Lee, 2010). We examined the discriminant validity by comparing the correlations between constructs and the square root of the average variance extracted for that construct (Fornell & Larcker, 1981). The results indicated that all square roots of the average variance were higher than the correlation values in the row and the column, indicating adequate discriminant validity. In summary, the measurement model demonstrates adequate convergent validity and discriminant validity. The results of discriminant validity are reported in Table 7.

Table 7. Discriminant validity

	ATT	PBC	SN	IWI	EWI
Attitude (ATT)	<b>0.777</b>				
Perceived behaviour control (PBC)	0.388	<b>0.795</b>			
Subjective norm (SN)	0.626	0.424	<b>0.878</b>		
Internal whistle-blowing intention (IWI)	0.520	0.347	0.535	<b>0.878</b>	
External whistle-blowing intention (EWI)	-0.001	0.203	0.127	0.119	<b>0.827</b>

Note. Diagonals are the AVE while the off-diagonals are the squared correlations.

### 3.5 Structural Model

The structural model indicates the causal relationships among constructs in the model (path coefficients and the  $R^2$  value) (Sekaran & Bogie, 2010). Both the  $R^2$  and path coefficients (beta and significance) indicate how well the data support the hypothesized model (Chin 1998; Sang et al., 2010). The results indicated that attitude ( $\beta_1 = 0.28$ ,  $p < 0.01$ ), subjective norm ( $\beta_3 = 0.31$ ,  $p < 0.01$ ), and perceived behavioural control ( $\beta_5 = 0.10$ ,  $p < 0.01$ ) explained 35.1 percent of the variance in internal whistle-blowing intentions. Meanwhile, attitude ( $\beta_2 = -0.17$ ,  $p < 0.01$ ), subjective norm ( $\beta_4 = 0.36$ ,  $p < 0.15$ ), and perceived behavioural control ( $\beta_6 = -0.17$ ,  $p < 0.01$ ) only explained 6.10 percent of the variance in external whistle-blowing intentions. The results support H1, H2, H3, H6 but do not support H4 and H5. Table 5 and Figure 2 show the results of the structural model from the PLS output.

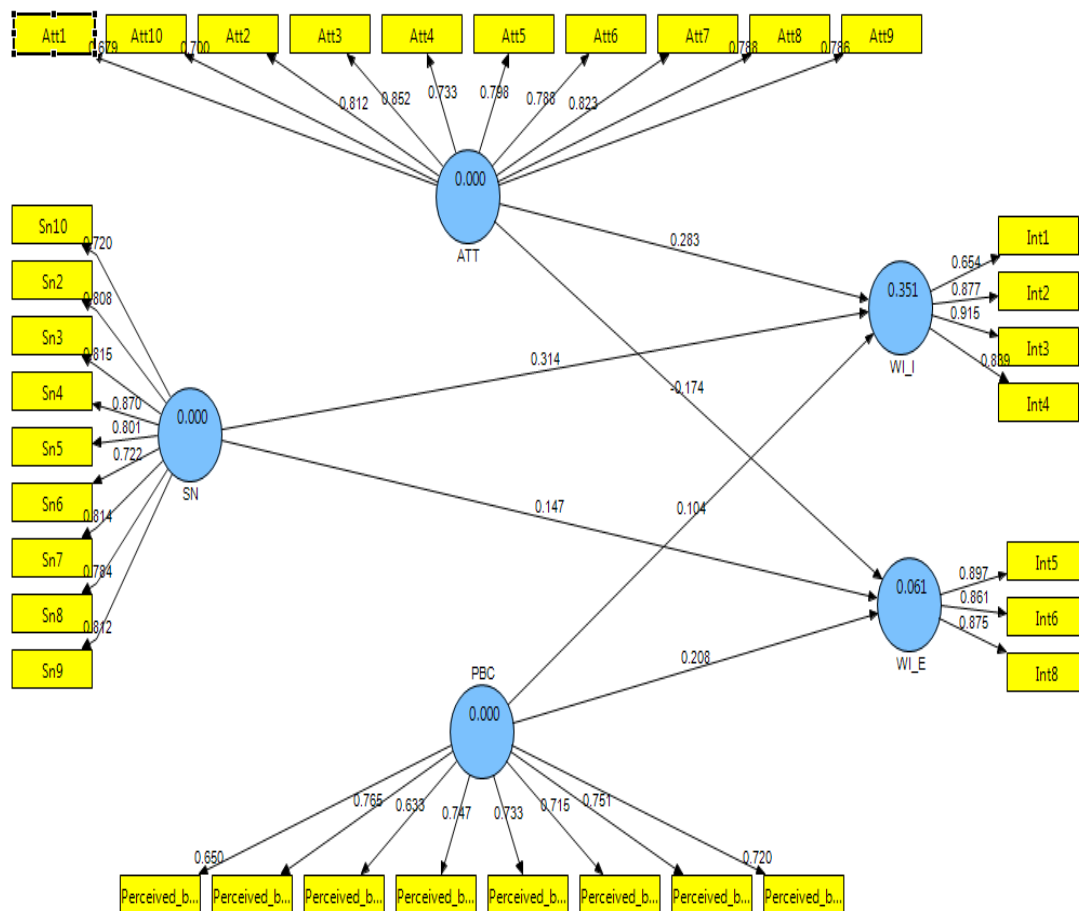


Figure 2. The structural model

Table 8. Path coefficients and hypotheses testing

Path	Description	Hypothesis	Standard	t-value	Results
ATT→ WI_I	Attitude → internal whistle-blowing intentions	H1	0.28	2.95***	Supported
ATT→ WI_E	Attitude → external whistle-blowing intentions	H2	-0.17	1.79**	Supported
SN → WI_I	Subjective norm → internal whistle-blowing intentions	H3	0.31	4.09***	Supported
SN → WI_E	Subjective norm → external whistle-blowing intentions	H4	0.15	0.11	Not supported
PBC→ WI_I	Perceived behavioural control → internal whistle-blowing intentions	H5	0.10	0.07	Not supported
PBC→ WI_E	Perceived behavioural control → external whistle-blowing intentions	H6	0.21	2.19**	Supported

Note. \* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ .

#### 4. Discussion

The results indicated that TPB is valid and a good framework in explaining the whistle-blowing intentions. Although the explanatory power for explaining internal whistle-blowing intentions is not too high (35.1%) and external whistle-blowing is extremely low (6.1%), it contributes to our understanding of what drives employees to blow the whistle. Moreover, the results also indicated that the roles and effects of the three determinants namely attitude, subjective norm and perceived behavioural control are different depending on the type of whistle-blowing.

Attitude was hypothesized to influence internal whistle-blowing intention. The results supported the hypothesis ( $\beta_1 = 0.28$ ,  $p < 0.01$ ) and concurred with the works of prior studies (Park & Blenkinsopp, 2007; Ellis & Arieli, 1999). We conclude that the more positive the employees' attitude towards whistle-blowing, the more likely is their internal whistle-blowing intentions. Employees who perceive the importance of whistle-blowing as part of internal control mechanisms are prone to blow the whistle to internal audiences. Blowing internally is preferable because the institutions can privately correct the wrongdoings and the matters would not be disclosed to the public. To encourage internal whistle-blowing, the management should offer sufficient protections and incentives to potential whistle blowers and this should be documented in the internal policies. Eventually, this will encourage employees to come forward with honour to report the wrongdoings.

Despite the fact that whistle-blowing is an important source to uncover wrongdoings, the survey conducted by PWC (2014) revealed that many institutions have yet to implement whistle-blowing as part of their internal policies. This is because they believe that whistle-blowing would create more harms than benefits to the management and institutions. In fact, evidences have shown that many wrongdoings were detected through this noble deed, for example in the case of Enron, WorldCom and Tyco in the US. Unfortunately, many were too late in detecting and thus failing to save the ailing institutions. Eventually, it is hoped that by implementing whistle-blowing as an internal policy, it will enhance employees' positive attitude towards whistle-blowing which in turn influences them to blow the whistle internally.

Attitude was hypothesized to influence external whistle-blowing intentions. The results supported the hypothesis ( $\beta_2 = -0.17$ ,  $p < 0.05$ ) and was consistent with the works of prior study (Ellis & Arieli, 1999) but the direction was in a negative relationship. The results contradicted with Park and Blenkinsopp (2007) of which they found that attitude had no effect on external whistle-blowing intentions. In general, employees owe a duty of loyalty to their employers, and this forbids them from reporting their wrongdoings to external audiences (Bowe, 1982). Therefore, we conclude that the more positive the employees' attitude towards whistle-blowing, the less likely are their intentions to blow the whistle to external audiences.

Subjective norm was hypothesized to influence internal whistle-blowing intentions. The results supported the hypothesis ( $\beta_3 = 0.31$ ,  $p < 0.01$ ) and were in tandem with prior studies (Park & Blenkinsopp, 2007; Ellis &

Arieli, 1999). According to Richardson et al. (2012), potential whistle blowers may seek the opinion of relevant others and weigh the costs and benefits before blowing the whistle (Miceli et al., 2008). Therefore, the more influential the referent group to respondents, the more motivation they have to comply, and thus the more likely are their internal whistle-blowing intentions.

Subjective norm was also hypothesized to influence external whistle-blowing intentions. The results did not support the hypothesis ( $\beta_4 = 0.15, p < 0.05$ ) and were inconsistent with prior studies (Park & Blenkinsopp, 2007; Ellis & Arieli, 1999). According to Abdullah (1992), the Malaysian cultural values do not encourage disclosing any internal affairs to outsiders (Abdullah, 1992). Any confidential matters whatever possible should be settled internally or within institutions. Prior studies were conducted in different countries; and the legislations and cultures were distinct from Malaysia. Hence, based on the results and consistent to the local culture, we conclude that the referent groups do not influence or have an effect on external whistle-blowing intentions.

Perceived behavioural control was hypothesized to influence internal whistle-blowing intentions. The results did not support the hypothesis ( $\beta_5 = 0.10, p > 0.1$ ) and was not in tandem with the study of Park and Blenkinsopp (2007). Perceived behavioural control is how the employees believe that their employers do not welcome whistle-blowing and those who report would be at the brink of one or more types of retaliation such as nullification, isolation, defamation or expulsion (Dworkin & Baucus, 1998). Here, based on the results, we conclude that no matter how the employees believe in control factors (neither opportunities nor difficulties) imposed by their management, their beliefs and evaluations would not affect internal whistle-blowing intentions.

Perceived behavioural control was also hypothesized to influence external whistle-blowing intentions. The results supported the hypothesis ( $\beta_6 = 0.21, p < 0.05$ ) but again it was contradicted with the study of Park and Blenkinsopp (2007). This prior study indicated that perceived behavioural control had effects on internal whistle-blowing intentions than that of external whistle-blowing intentions. Ironically, if the management imposes difficulties for employees to blow the whistle, there is a high tendency that they would report to outsiders. Even though the results are contradicting, we conclude that the more likely the employees perceive the difficulty of blowing the whistle imposed by the management, the more likely they will blow the whistle to external audiences.

#### *4.1 Practical Implication*

The findings have implications for lawmakers, policymakers, institutions and management with concerned of whistle-blowing towards improving accountability and good governance in institutions. The results indicated that employees tend to blow the whistle internally rather than externally and therefore the institutions should create a variety channel of reporting and policies to facilitate internal whistle-blowing such as internal policies, hotlines, complaint boxes, recognitions, rewards, protections and the like.

The results indicated that attitude has a positive relationship with internal whistle-blowing intentions but a negative relationship with external whistle-blowing intentions. Therefore, institutions should instil employees with positive attitude towards internal whistle-blowing and this would hinder them from reporting to the external audiences. The employees should be given the autonomy to behave as their conscience dictates them. Reporting wrongdoings becomes the duty and responsibility of employees apart from giving them sufficient protection through internal policies. For example, the policies forbid retaliation against whistle blowers and reward them for reporting wrongdoings internally.

This aims at changing employees' attitude towards whistle-blowing of which they perceive that they are encouraged to report internally and can make a significant contribution for the betterment of the institutions. Indeed, the management should take a proactive approach to convince and assure members on the importance of reporting wrongdoings internally so that corrective action can be taken without the interference of outsiders.

The findings provide implications that referent groups play important roles in motivating members to blow the whistle internally. The results indicated that top management is the most influential group that the employees perceive important to them and motivated to comply with. Supporting and encouraging whistle-blowing in work places through internal policies and various reporting channels would provide a view that the management is supporting whistle-blowing.

For institutions, the strategy of encouraging internal whistle-blowing has two further benefits. First, it improves risk management by making it less likely that wrongdoings will go undetected. Second, by increasing the likelihood of internal whistle-blowing, they should reduce the likelihood of external whistle-blowing, which is generally viewed by organization as having negative consequences for reputation. When an institution has put in

place effective procedures for internal reporting, it might be legitimate for the institution to discourage external whistle-blowing.

The findings provide implication to Malaysian lawmaker to strengthen the whistle-blowing Act by extending the protection to internal whistle blowers as well. In Malaysia, whistle blowers are protected by the whistle-blowing Act 2010, Act 611, whereby the Act only offers protection to those who blow the whistle to five enforcement agencies who are the outsiders namely the Police Department, Custom, Road Transport Department, Malaysian Anti-Corruption Commission, and the Immigration Department. The Act does not offer protection to those who wish to blow internally (Tan & Ong, 2011). This is unfortunate for the whistle blowers who wish to report internally. Hence, if the management imposes many rules on internal whistle-blowing and the legislation is not of their favour, the likelihood of reporting to these enforcement agencies who are outsiders is higher than that of internal audiences.

#### *4.2 Theoretical Implications*

TPB proved to be a good framework for predicting whistle-blowing intentions. The present study supports the model as it measures the perceptions of relevant others' attitudes about blowing the whistle and concerns over costs of this particular behaviour. The influence of attitude in explaining the intentions of external Whistle-blowing is not as great as for internal Whistle-blowing. All items for external Whistle-blowing intentions show a lower response than even the lowest item for internal Whistle-blowing intentions.

The role of attitude towards whistle-blowing is quite different in influencing intentions for internal versus external whistle-blowing intentions. For example, attitude and subjective norm are the significant antecedent factors for predicting internal whistle-blowing intentions. Meanwhile, for predicting external whistle-blowing intentions, attitude and perceived behavioural control are the significant antecedent factors, which is consistent with the past studies (Park & Blenkinsopp, 2007; Ellis & Arieli, 1999). This indicates that there is a gap between the antecedent factors of behavioural intentions namely internal and external Whistle-blowing intentions.

#### *4.3 Limitation and Direction for Future Research*

Results of this study are considered in light of several limitations. First, the respondents are not randomly selected. Instead, we include the police officers who voluntarily agreed to participate. Second, we cannot generalize the results to all individuals and sectors as the respondents are confined to policemen in a police station located in only one state in Malaysia. Extending the study to include individuals working in other professions and systematic selection of respondents may add further support to the findings.

Moreover like other whistle-blowing research, the dependent variable in the present study is whistle-blowing intentions, rather than actual behaviour. We cannot say with certainty that those who indicate they would report wrongdoings would actually do so.

Additionally, there is the possibility of measurement errors. The study focuses on perception of the respondents and the instrument relied on self-reports and perceptions of the respondents alone. There is a tendency that respondents may inflate their assessment of attitude, subjective norm and whistle-blowing intention. Moreover, the instrument is also self-administered and there may be situations in which respondents need further clarifications which are not available.

The explanatory power for explaining internal whistle-blowing intentions is not as high as expected (35.1%) and extremely low for external whistle-blowing intentions (6.1%), indicating that other factors are also the antecedents of whistle-blowing intentions. In future studies, it would be important to include other factors, such as ethical philosophies namely deontology and teleology, culture, organization and personality. Hence, exploration of these factors would facilitate the understanding on the antecedent factors of whistle-blowing intentions and thus offer important insight in motivating employees to blow the whistle.

### **5. Conclusion**

The TPB is recognized for its success in predicting and explaining volitional behaviours in a wide variety of contexts including understanding the factors contributing to Whistle-blowing intentions. The findings indicated that the theory is more effective in explaining internal rather than external whistle-blowing intentions. Additionally, the findings indicate that among the three components, attitude and subjective norm appear to be the most important factor to be considered if seeking to encourage internal whistle-blowing intentions. On the other hand, attitude and perceived behavioural control are found to be significant antecedents for external whistle-blowing intentions. The findings could extend an institution's ability to predict whistle-blowing intentions in the real world and guide managerial efforts to improve the effectiveness of reporting channels aimed at reducing risk management. Last but not least, encouraging whistle-blowing in work place would

prompt greater stakeholder confidence towards the institutions as whistle-blowing is often the only line of defence against unethical, illegitimate or illegal institutional activities.

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