

Work experience and whistle-blowing intention: The mediating role of ethical reasoning

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ABSTRACT: *Ethical reasoning involves the cognitive process of reasoning which in turn leads to moral decision making. The aim of the study is to provide a possible explanation for the inconclusive empirical results of previous whistle-blowing studies. Using theory of planned behaviour and cognitive moral development theory as frameworks, this study examines the mediating role of ethical reasoning in the relationship between work experience and whistle blowing intention. Data were collected from 311 supervisors from large manufacturing companies in Malaysia. Applying the Sobel test, the results indicate that ethical reasoning plays a mediating role in the relationship between work experience and whistle-blowing intention. Implications for theory and practice of the findings are discussed.*

Keywords: whistle-blowing intention, ethical reasoning, work experience, Malaysia

Recently, researchers have shown an increased interest in determining individual key factors that contribute to whistle-blowing intention (Keil, Tiwana, Sainsbury & Sneha 2010; Lih-Bin & Hock-Hai 2010; Taylor & Curtis 2010; Zhang, Chiu & Li-Qun 2009). Yet, findings on the relationship between work experience and whistle-blowing intention from previous studies are still open for discussion. Inconsistency of results for the relationship between work experience and whistle-blowing intention motivate this study to further investigate the relationship between work experience and whistle-blowing intention.

Scholars agree that adequate work experience is essential in determining an individual's decision to whistle-blow (Mesmer-Magnus & Viswesvaran 2005; Miceli & Near 1988; Sims & Keenan 1998). Work experience has been directly associated with whistle-blowing intention by many researchers but this relationship has produced inconclusive empirical results (Miceli, Near & Dworkin 2008). Reviews from Miceli, Near and Dworkin (2008) and Mesmer-Magnus and Viswesvaran (2005) indicate that inconclusive results range from a positive relationship (Brewer & Selden 1998, 1995; Dworkin & Baucus 1995; Goldman 2001; Miceli & Near 1988) to a mixed relationship (Wise 1995) to an insignificant relationship (Keenan & Sims 1995; Lee, Heilmann & Near 2004; Sims & Keenan 1998).

Given this state of empirical findings, this study proposes a specific aspect to strengthen the relationship between work experience and whistle-blowing intention based on the argument that cognitive moral development is positively related to socially responsible behaviour (Goolsby & Hunt 1992). Since the cognitive aspect has been found to affect individuals' behaviour, the relationship

between work experience and whistle-blowing intention is predicted to be dependent on such cognitive aspect; specifically, ethical reasoning.

The main objective of this study is to examine the mediating role of ethical reasoning upon the relationship between work experience and whistle-blowing intention. This effort is deemed significant in several ways. First, this study would offer an alternative explanation for the inconclusive empirical results obtained from previous studies on the direct effects between work experience and whistle-blowing intention. Second, as evidenced, only limited studies have investigated whistle-blowing intention in a non-western context (Park & Blenkinsopp 2009; Lih-Bin & Hock-Hai 2010; Zhang, Chiu & Li-Qun 2009), and thus, results of this study are expected to, at least, bridge western and non-western differences. Finally, this study may bring further insight regarding the influence of ethical reasoning on whistle-blowing intention, particularly within the manufacturing sector in Malaysia. Ethical reasoning may enhance an individual's intention to whistle-blow. Thus, intention to whistle-blow may depend upon ethical reasoning as a mediator.

THEORETICAL BACKGROUND AND HYPOTHESES

Whistle-blowing intention

Whistle-blowing 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 who may be able to effect action' (Near & Miceli 1985: 4). Since the dependent construct of this study is whistle-blowing intention rather than actual whistle-blowing action, the issue of behavioural intention needs to be examined. According to theory of planned behaviour (TPB) (Ajzen 1991; Ajzen & Fishbein 1985), 'behavioural intention is a good predictor of actual behaviour' (Chiu 2003: 66). A behavioural intention is the subjective probability that an individual assigns to the likelihood that a given behavioural alternative will be chosen (Ajzen 1991; Hunt & Vitell 1986). A person's behavioural intention is a weighted additive function of three elements; namely, the person's attitude¹, subjective norm² and perceived behavioural control³.

¹ The person's attitude is the person's judgment of that behaviour (Demetriadou 2003).

² The person's subjective norm means the person's perceived acceptability of that behaviour (Demetriadou 2003).

The decision to study whistle-blowing intention⁴ rather than actual whistle-blowing action is justified due to the impossibility and difficulty of carrying out investigations of unethical conduct in the workplace by first hand observation (Victor, Trevino & Shapiro 1993). However, a study on restaurant employees in the fast food industry provides evidence that behavioural intention correlates with actual peer reporting of unethical behaviour (Victor, Trevino & Shapiro 1991). Thus, whistle-blowing intention is deemed appropriate in the context of this study.

Ethical reasoning

Ethical reasoning refers to an individual's ability to apply values and standards to socio-moral problems and determine a course of action (Sivanathan & Fekken 2002). The psychology of ethical reasoning draws from the field of cognitive moral development (CMD) theory put forward by Kohlberg (1969). According to Kohlberg (1981), CMD theory combines moral philosophy with cognitive psychology in making the assertion that an individual's cognitive development is a prerequisite for the individual's moral reasoning⁵. In short, CMD theory is about the cognitive processes that the individual uses in making decisions between right and wrong that depend on the individual's level of ethical reasoning. The level of ethical reasoning (as listed in Table 1) will determine the individual's ethical reasoning ability (Herington & Weaven 2008). CMD theory proposes that the level of an individual's ethical reasoning ability is closely linked to the individual's chosen action and the chosen action is likely to be more ethical as the level of ethical reasoning increases (Kohlberg 1976).

Ethical reasoning ability is measured by six different stages of CMD and is classified under three levels of moral development; namely, pre-conventional, conventional and post-conventional (Colby & Kohlberg 1987).

[Insert Table 1 here]

³ The person's perceived behavioural control refers to the person's perception of the difficulty level of performing that behaviour (Demetriadou 2003).

⁴ Whistle-blowing intention in this study refers to 'the individual's probability of actually engaging in whistle-blowing behaviour (Chiu 2002: 582).

⁵ The terms ethical reasoning and moral reasoning are used interchangeably as commonly found in prior behavioural ethics research (Trevino, Weaver & Reynolds 2006).

To measure ethical reasoning ability, Kohlberg (1969) developed his own instrument called the Moral Judgment Interview (MJII). However, another instrument, the Defining Issues Test (DIT), is the most widely accepted instrument to measure ethical reasoning ability (Gibbs & Widaman 1982; Goolsby & Hunt 1992; Narvaez & Bock 2002; Rest 1986a; Rest et al. 1999). Rest (1979a) states that the DIT provides greater scoring reliability than the MJII. Recently, Narvaez and Bock (2002) claimed that the DIT overcomes issues related to the ability to articulate one's reasoning.

Work experience and ethical reasoning

Work experience refers to the individual's length of time employed by his/her current employer or organization (Cherry 2006). In line with CMD theory, Kohlberg's (1969) model of moral reasoning proposes that individuals develop their ability for ethical reasoning over time within a work environment (Forte 2004a). A study by Kujala (1995) proves this proposition where top managers with longer managerial experience have more positive attitudes toward ethical issues in relation to stakeholders. Further, in their review of ethical reasoning, O'Fallon and Butterfield (2005) believe work experience influences ethical decision-making. Hence, the following hypothesis is proposed.

Hypothesis 1: Work experience is positively associated with ethical reasoning

Ethical reasoning and whistle-blowing intention

Linking with the theory of planned behaviour put forward by Ajzen (1991), Kohlberg's CMD theory (1981) proposes that individuals interpret their activities when planning, learning and acting. Kohlberg (1981) believes individuals' morality can be determined by knowing their intentions and points of view. Such cognitive processes are subject to their attitudes, the subjective norm and perceived behavioural control, under the theory of planned behaviour (Ajzen 1991). Besides, Rest's (1979a, 1994) model of ethical action theorizes that ethical reasoning consists of four components: (1) identification of an ethical dilemma, (2) ethical judgment, (3) intention to act ethically and (4) ethical action or behaviour (Jones, Massey & Thorne 2003). Many scholars agree that the ethical reasoning process is part of an individual's overall moral consciousness when dealing with difficult conflicts or dilemmas in everyday practice (Louwers, Ponemon & Radtke 1997). In agreement, Thorne (2000) states that several assumptions have been made by many researchers, based on the theory, which

propose that individuals sequentially progress through stages in the development of ethical reasoning. Thus, the following hypothesis is proposed.

Hypothesis 2: Ethical reasoning is positively associated with whistle-blowing intention

Ethical reasoning as a mediator between work experience and whistle-blowing intention

Drawing from the field of cognitive moral development, the psychology of moral reasoning provides a theory to explain an individual's decision-making process prior to ethical behaviour. Cognitive moral development theory proposes that ethical reasoning develops 'as the individual develops, gaining experience and autonomy, and producing relationships that are based on mutual reciprocity giving rise to the emergence of subjective responsibility' (Izzo 2000: 121). Such moral reasoning ability is not directly theorized as a mediator between work experience and whistle-blowing intention in the existing literature. However, ethical reasoning is widely regarded not only as a key benefit of work experience (Herington & Weaven 2008; Izzo 2000; Ponemon 1995; Stewart & O'Leary 2006), but also a significant antecedent of whistle-blowing intention (Brabeck 1984; Liyanarachchi & Newdick 2009; Xu & Ziegenfuss 2008). Hence, the following hypothesis is proposed.

Hypothesis 3: Ethical reasoning mediates the relationship between work experience and whistle-blowing intention

METHODS

Sample and procedure

This study uses large⁶ manufacturing companies listed under Bursa Malaysia Berhad (BMB)⁷. Previous research has shown that large organizations have a greater incidents of wrongdoings (Lau et al. 2002). Manufacturing companies are posited as an adequate environment because such companies often incorporate incidents of wrongdoings (Hooks, Kaplan & Schultz 1994; Ponemon & Gabhart 1994). The rationale for choosing the companies under BMB is based on the provisions under the Malaysian whistle-blowing law, newly introduced in 2003 under the Securities Industry (Amendment) Act, 2003 and under the new Companies (Amendment) Act, 2007 (Hassan 2006; Yakcob 2005).

⁶ Large manufacturing companies refer to manufacturing companies having more than 1000 employees and market capitalization of RM500 million (BMB 2009; FMM 2008).

⁷ BMB was formerly known as Kuala Lumpur Stock Exchange (KLSE), the stockbroking company in Malaysia (BMB 2009).

Listed manufacturing companies under BMB are more likely to run investigations for whistle-blowing behaviour (Anwar 2003).

To collect data, the role of supervisor was chosen for respondents in this study. One reason is based on the argument that reports of wrongdoings are usually made by members close to the inner workings of an organization (Mesmer-Magnus & Viswesvaran 2005). Another reason follows from Wahab (2003), who indicates that supervisors who intend to disclose their organization's malpractices will be protected from victimization and retaliation under the Securities Industry (Amendment) Act, 2003. Generally, the Malaysia whistle-blowing provisions apply to breaches of securities laws and stock exchange rules. Khan (2003), however, suggests that the issue of implementation of the Act should firstly be confined to specific employees such as supervisors of publicly listed companies.

Using the BMB directory, five companies from three sectors (consumer product, industrial product and technology) were randomly selected to form a total of 15 companies for the sample of this study. A total of 600 surveys were distributed to all supervisors working in the selected 15 companies. Of the 600 surveys, 346 were returned, representing 57.7 % response rate. However, 35 responses were discarded because they failed to meet reliability checks on the ethical reasoning. The reliability check of ethical reasoning adhered to Rest's rules for consistency (Rest 1986). The DIT contains a reliability check called M score⁸. The M score items are not representative of any stage of thinking. Therefore, respondents who score too highly in these items are considered to be unreliable respondents and as such are discarded from the data set. Further, a second built-in check on reliability is called the 'consistency check'. Each respondent's rating is compared with his/her rankings. It is expected that the rankings should correspond to the ratings. Therefore, if the rankings do not correspond to the ratings, those respondents are eliminated from the data. Thus, a total of 311 completed questionnaires were used for this study, representing 51.8% response rate. The response rate is deemed appropriate because Babbie (1986) suggests that a response rate of at least 50% is adequate for analysis and reporting while 50 to 60 percent is good for research on a sensitive topic.

⁸ The M score which refers to 'meaningless' is an internal reliability check used by the researcher to detect non-thoughtful respondents (Herington & Weaven 2008; Izzo 2000).

Also, non-response bias was checked (Armstrong & Overton 1977) comparing responses of late respondents with those of early respondents on key demographic variables. Independent sample t-tests revealed no significant differences between any of the variables, indicating non-response bias does not appear to be a problem in this study.

Table 2 displays the profile of respondents. All information is presented in actual figures and percentages to facilitate interpretation. The proportion of males to female is 50.2% males and 49.8% females, with 63.7% of the respondents married and 36.3% single. The respondents are mainly Malay (63.0%), Chinese (21.9%) and Indian (15.1%) with 68.5% of them aged between 30 to 40 years. In total, 43.4% of the respondents have a university degree and 33.5% work in large companies having more than 2,000 employees.

[Insert Table 2 here]

Measures

This study considers the fact that the respondents are Malaysians and little research has been conducted using the chosen measure outside of western countries. Therefore, a back-translation process was utilized to minimize any possible variance due to cultural and linguistic differences.

Work experience. Work experience was measured by asking respondents to indicate the length of their employment in their organization. The respondents stated the number of years for their length of employment (Mesmer-Magnus & Viswesvaran 2005; Sims & Keenan 1998).

Whistle-blowing intention. Whistle-blowing intention was measured using a short scenario or vignette⁹ adapted from Demetriadou (2003). The vignette approach was utilized in this study because the vignette provided a more realistic context for the respondents, i.e., they, themselves, are placed in the position of a character portrayed in a hypothetical situation (Reidenbach & Robin 1990; Weber 1992; Patel 2003). Along with the vignette, a four-item semantic differential scale of behavioural intention has been adapted from Barnett et al. (1996) and used to measure whistle-blowing intention. This scale was utilized because it displays respondents' intention in a consistent manner for the given vignette (Barnett, Bass & Brown 1996; Zhang, Chiu & Wei 2009). The respondents were asked to

⁹ Vignettes are "short descriptions of a person or social situation which contain precise reference to what are thought to be the most important factors in the decision-making or judgment-making process of respondents" (Alexander & Becker 1978: 94).

read the vignette and assess the probability of blowing the whistle in both terms of “given the hypothetical situation above, indicate your likelihood to report the observed violation to the next higher level” and “given the hypothetical situation above, indicate your colleagues’/peers’ likelihood to report the observed violation to the next higher level”. The purpose of asking the respondents to imagine their colleagues’/peers’ behavioural intention was to identify any social desirability response bias that might be present in the response (Watkins & Cheung 1995). A six points scale ranging from 6 (definitely would) to 1 (definitely would not) was used. The reliability of the scale was $\alpha = 0.965$. The rationale of applying the six-point scale was to overcome the central tendency error (Cooper & Schindler 2003). This error could occur when respondents especially in the Asian countries ended up ranked their priority in the neutrality dimension (Trompenaars & Hampden-Turner 1997). Therefore, the middle response namely “neutral” or “neither would nor would not” was excluded when designing survey instrument.

Ethical reasoning. Ethical reasoning was measured using the widely used short version of Rest’s (1979a, 1979b) Defining Issues Test (DIT). The DIT was employed to measure the respondents’ cognitive moral development levels (Rest 1986a; Colby & Kohlberg 1987). The DIT consists of a series of short standardized vignettes relating to general social dilemmas (Herrington & Weaven 2008). The full version of the DIT contains six vignettes; however, this study utilizes a shorter version, i.e., a three-vignette version. This shorter version is popular among researchers particularly due to the response rates probability being comparable to the longer version (Bay & Greenburg 2001; Early & Kelly 2004; Eynon, Hill & Stevens 1997; Goolsby & Hunt 1992; Ho et al. 1997). The choice of social dilemmas for the three vignettes is based on the respondents’ “applicability to the environment”¹⁰, i.e., the Malaysian environment. The respondents were required to read the three dilemmas and answer a set of questions. After reading each dilemma, the respondents were asked to rank their top four (out of twelve) issue statements based on their level of importance. The ethical reasoning score was determined based on the respondents’ ranking of the four most important issue statements. More specifically, the score is known as P%-score (standing for

¹⁰ See Herrington and Weaven (2008) where there is a necessity to minimise cultural adaptation of ethical dilemma topics.

“principled morality”). The P score represents the percentage of total possible scores (0 to 95) assigned to stage 5 and 6 issue statements (according to Kohlberg’s cognitive moral development theory). According to Herrington and Weaven (2008), an individual with a high P score possesses a high level of ethical reasoning ability and this equates with ability to reason at a high stage of cognitive moral development.

Control variables. Gender, educational level and firm size were included as control variables. Gender was a dichotomous variable represented by male = 1 and female = 2. Educational level was measured using a nominal scale and was coded as a four-level variable: 1 (Diploma), 2 (Degree), 3 (Master’s degree) and 4 (other qualification). Firm size was measured with a single item: number of full-time equivalent employees. The control variables had been proposed by Miceli and Near (1992) to be potential influences on whistle-blowing decisions (Barnett, Bass & Brown 1996; Barton 1995; Regh et al. 2008).

Analysis and results

Means, standard deviations and correlations are presented in Table 3. Overall, the correlations between the variables are in the predicted direction and significant at $p < 0.01$. The mean of ethical reasoning is 36, indicating that the sample of this study falls into the ‘middle third’¹¹ category. The ‘middle third’ category shows that the level of ethical reasoning is concentrated on the conventional level (stage 3 and 4) of CMD theory (Kohlberg 1969, 1981). In brief, this level of ethical reasoning shows the respondents are able to resolve ethical dilemmas. The average work experience of the respondents was 8 years. In general, the respondents indicated a small tendency to whistle-blow as indicated by the mean of 3.8 assessed in the 6 point Likert-scale. Control variables are not correlated with the dependent variable in this study. Therefore, all control variables were predicted not to have any confounding effect on the hypothesized relationship and the decision was made to exclude all control variables in subsequent analysis.

[Insert Table 3 here]

¹¹ Following the DIT manual (Rest 1990), P score of respondents falls into three categories; ‘low third’ category refers to P score 0-27%, ‘middle third’ category refers to P score 28-41% and ‘high third’ category refers to 42-100%.

Using regression analysis, the results indicate a significant relationship between work experience and ethical reasoning ($F = 126.85, p < .001; \beta = .539, p < .001$). Thus, hypothesis 1 is supported. Similarly, a significant relationship is found between ethical reasoning and whistle-blowing intention ($F = 12.521, p < .001; \beta = .197, p < .001$). Therefore, hypothesis 2 is supported.

[Insert Table 4 here]

Hypothesis 3 proposes that ethical reasoning mediates the relationship between work experience and whistle-blowing intention. The common way to assess mediation is to apply the multi-step process suggested by Baron and Kenny (1986). However, recently, researchers have argued that mediation can be established without significant direct relationship between independent and dependent variables (MacKinnon et al. 2002; Shrout & Bolger 2002). Therefore, this study applies the Sobel test (Sobel 1982) to test mediation. The Sobel test is a method for assessing indirect effects that, in itself, does not require significant main effects for the independent and dependent variables (MacKinnon et al. 2002). The Sobel test statistic is significant at $p < .05$ ($z = 2.127, p = 0.03$). Thus, this study finds support for the mediating effect of ethical reasoning on the relationship between work experience and whistle-blowing intention. Hypothesis 3 is therefore confirmed.

[Insert Table 5 here]

DISCUSSION

This study examines a direct relationship between work experience and whistle-blowing intention, and the mediating role of ethical reasoning on this relationship, with a sample of Malaysian supervisors in manufacturing companies. As stated by Abdullah (1996), although Malaysian society is a multi-cultural mix (Malay, Chinese and Indian), Malaysian workers share common and distinct workplace values. Confirming hypothesis 1, work experience has a positive relationship with ethical reasoning. This result is consistent with prior studies in a western context (Izzo 2000; Stewart & O'Leary 2006). Similarly for hypothesis 2, ethical reasoning has a positive relationship with whistle-blowing intention and thus the result is consistent with prior studies (Gundlach, Douglas & Martinko 2003; Gundlach, Martinko & Douglas 2008). As for hypothesis 3, the results show ethical reasoning plays a mediating role in the relationship between work experience and whistle-blowing intention.

The analysis proves that ethical reasoning links the relationship between work experience and whistle-blowing intention. Hence, more experienced supervisors are more likely to have whistle-blowing intention if they possess ethical reasoning ability. Theoretically, ethical reasoning ability is determined by the level of ethical reasoning. In this study, the level of ethical reasoning of Malaysian supervisors falls within the 'middle third' category. The 'middle third' category shows the level of ethical reasoning of the supervisors is concentrated on the conventional level (stage 3 and 4) of Kohlberg's (1969, 1981) model of cognitive moral development theory. Having this level of ethical reasoning, the supervisors are believed to be able to resolve ethical dilemmas without leading to any harm to others in their organizations.

Applying the theory of CMD and following Kujala (1995) and O'Fallon and Butterfield (2005), this study concludes that the more work experience supervisors gain, the greater the increase in their ethical reasoning abilities, and therefore, the more tendency they may whistle-blow. As mentioned by Miceli, et al. (2008), individuals' levels of work experience play a vital role in their decisions to whistle-blow. On the other hand, Liyanarachchi and Newdick (2009) suggest that individuals' decisions to whistle-blow depend upon their levels of ethical reasoning.

Implication for theory

This study makes three major contributions to theory. Firstly, as a preliminary study involving whistle-blowing in Malaysia, this study provides new literature on whistle-blowing research in a non-western context. Thus, the results of this study may additionally provide a literature in comparing whistle-blowing behaviour between western and non-western countries. Previously, a study using large companies indicates that American managers are more likely to whistle-blow compared to Chinese managers (Keenan 2007). Secondly, this study demonstrates a direct relationship between work experience and whistle-blowing intention, which advances previous empirical research. Lastly, this study suggests a new avenue to whistle-blowing research by incorporating ethical reasoning as a mediating variable in strengthening the relationship between work experience and whistle-blowing intention.

Practical implications

This study offers managerial contributions. For example, top management would gain from supervisors who can be relied upon to receive whistle-blowing complaints from workers (Mesmer-Magnus & Viswesvaran 2005). This situation may enhance an effective internal control mechanism as well as good corporate governance within organizations. If organizations are serious in implementing whistle-blowing as an internal control mechanism, they may need to consider enhancing ethical reasoning ability among their employees via ethics training programs. Ethics training programs have been suggested by many researchers for the development of ethical reasoning ability (Jones, Massey & Thorne 2003; Trevino, Weaver & Reynolds 2006).

Limitations and directions for future research

Using a hypothetical vignette to evaluate whistle-blowing intention may be subject to social desirability bias. However, several preventive steps such as guaranteed anonymity and confidentiality of individual responses were taken to ensure that social desirability bias was minimized (Podsakoff, MacKenzie, Lee & Podsakoff 2003). Also, there is a possibility that different results might be obtained with a different sample and size. Future research should incorporate other individual and contextual variables that influence whistle-blowing intention. A mixed-method approach could be applied to strengthen the results and gain better understanding of the hypothesized relationships. A cross-cultural study would also provide comparative results on whistle-blowing intention among employees in western and non-western countries.

Conclusion

This study has contributed to an understanding of whistle-blowing intention. Specifically, work experience is positively associated with ethical reasoning. Similarly, ethical reasoning is positively associated with whistle-blowing intention. Also, ethical reasoning plays a mediating role on the relationship between work experience and whistle-blowing intention. Future research can expand these results for a better understanding of the impact of ethical reasoning on the relationship between work experience and whistle-blowing intention.

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TABLES

Table 1: Six stages of Cognitive Moral Development

Pre-conventional level:

Stage 1 Obeying rules and authority, avoiding punishment, and not doing physical harm.

Stage 2 Serving one's own or others' needs and making fair deals in terms of concrete exchange.

Conventional level:

Stage 3 Playing a good (nice) role, being concerned about other people and their feelings, keeping loyalty and trust with partners, and being motivated to follow rules and expectations.

Stage 4 Doing one's duty in society, upholding the social order, and maintaining the welfare of the society or the group.

Post-conventional level:

Stage 5 Upholding the basic rights, values, and legal contracts of a society, even when they conflict with the concrete rules and laws of the group.

Stage 6 Assuming guidance by universal ethical principles that all humanity should follow

Source: Adapted from Rest and Narvaez (1994)

Table 2: Profile of Respondents

Demographic profile	Number of respondents (N = 311)	Valid percentage (%)
Gender:		
Male	156	50.2
Female	155	49.8
Marital status:		
Single	113	36.3
Married	198	63.7
Race:		
Malay	196	63.0
Chinese	68	21.9
Indian	47	15.1
Age:		
<30	18	5.8
30-40	213	68.5
>40	80	25.7
Educational level:		
Diploma	87	28.0
Degree	135	43.4
Master degree	19	6.1
Other qualification	70	22.5
Size of organization:		
1000 - 1999	207	66.5
2000 - 2999	82	26.4
3000 - 3999	22	7.1
Working experience:		
< 5 years	94	30.2
5 – 10 years	102	32.8
>10 years	115	37.0

Table 3: Mean (*M*), standard deviation (*SD*) and correlation between the study variables

	Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1	Work experience	8.424	4.999	1.00	-	-	-	-	-
2	Whistle-blowing intention	3.846	1.786	.180**	1.00	-	-	-	-
3	Ethical reasoning	35.982	19.732	.949**	.205**	1.00	-	-	-
4	Gender			-.090	.023	-.092	1.00	-	-
5	Educational level			.168**	.003	.134*	-.117*	1.00	-
6	Firm size	1855	467.774	-.052	-.061	-.033	-.050	-.084	1.00

M, Means; *SD*, standard deviations;

* $p < 0.05$; ** $p < 0.01$

Table 4: Regression results for hypotheses 1 and 2

Predictors	Ethical Reasoning				Whistle-blowing intention			
	R ²	F _(1,309)	β	Sig	R ²	F _(1,309)	β	Sig
Work Experience	.291	126.85	.539	.000				
Ethical Reasoning					.039	12.521	.197	.000

Note: R² = R-square scores, F = F-ratio, β = Beta weights, Sig = level of significance (***) $p < .001$

Table 5: Result of hypothesis 3

	Test statistics	Standard error	<i>p</i> -value
Sobel test	2.127	0.0125	0.03

Note: * $p < .05$

