Understanding Whistleblowing Intention Among Public Sector Employees in the Northern Region of Malaysia: Does Gender Matter?

Zul Muhammad Zairi[1*], Abdullah Muhammad Syukri[1], Awang Tuah Siti Normah[1], Zainudin Zatil Aqmar[2], Aziz Anidah[1]
[1]Faculty of Business and Management, UiTM Melaka Branch, Malaysia
[2]Politeknik Tuanku Sultanah Bahiyah, Kulim, Kedah, Malaysia
muhammad_zairi@rocketmail.com[*], syukriabdullah@uitm.edu.my, sitinormah@uitm.edu.my,
zatil@ptsb.edu.my, anidah903@uitm.edu.my

Abstract: The objective of this study is to determine the factors influencing whistleblowing intention among public sector employees. This study utilized the Theory of Prosocial Behavior which includes contextual determinants (policy and procedure, training, responsiveness of management, reporting channel, financial reward, seriousness level of wrongdoing) and individual determinants (knowledge, trust) as independent variables while whistle blowing intention is the dependent variable. Additionally, this study also includes gender as a moderating variable in the relationship between the contextual and individual determinants toward whistleblowing intention. The data was collected from 123 public sector employees in the northern region of Malaysia (Perlis, Kedah, Penang) from various ministries via an online survey questionnaire and analyzed using SmartPLS. This study found that there is a significant relationship between all independent variables and whistleblowing intention, except for the responsiveness of management. Additionally, gender was found to be significant in the relationship between several independent variables and whistleblowing intention.

Keywords: *Whistleblowing intention, public sector, theory of prosocial behavior*

1. Introduction and Background

Corruption and unethical behavior continue to be a global issue for both private and public sector management. Because they are the executive body that manages and spends public funds, the public sector has always been associated with issues of corruption, integrity, and other unethical conduct. In 2022, the Corruption Perceptions Index (CPI) for Malaysia was given a score of 47 on a scale from 0 (highly corrupt) to 100 (very clean), ranking 61st out of 180 countries (Transparency International, 2023). This illustrates that the public sector in Malaysia is not doing enough to eradicate malpractice and corruption effectively. As a consequence, the government organization's credibility will be impacted (Nawawi & Salin, 2018). It is of the uttermost importance to develop robust and effective integrity systems in the public sector to ensure that unethical behaviors do not undermine the public's confidence in the government as a whole (Moreira, 2019). Therefore, whistleblowing is recommended as an approach to eliminating wrongdoings such as corruption (Md. Lazim et al., 2022). Ismail et al. (2018) define whistleblowing as the reporting of any misconduct that happens within an organization. The Malaysian government implemented a National Anti-Corruption Plan (NACP) in 2019 that includes whistleblowing as a strategy to eliminate corruption and unethical conduct.

However, not everyone has the courage to come forward as a whistleblower due to the potential risks involved. In some organizations, whistleblowers are not welcome. They will be labelled as troublemakers and will be exposed to numerous risks, including being terminated, blacklisted, detained, sued, or, in the worst-case scenario, assaulted or homicide (Zainol et al., 2018). Before deciding whether or not to report, individuals will evaluate the potential positive and negative implications. As whistleblowing is a difficult decision that is susceptible to harm and risk, numerous studies have been carried out to understand the motivating variables that might encourage and attract a potential whistleblower to come forward. Dozier and Miceli (1985) asserted that variables such as individual and situational factors will impact the whistleblowing decision-making process. Thus, a variety of potential factors may influence the intention of public sector employees to blow the whistle (Abdullah Sani et al., 2022). Furthermore, Pratolo et al. (2020) suggested using a moderating variable in examining whistleblowing intention. Due to inconsistent findings among previous whistleblowing literature on gender, this study employed gender as a moderating variable in the relationship between contextual and individual determinants and whistleblowing intention.

This study provides academics with useful insights for underpinning the theory of prosocial behavior by explaining determinant factors, which are contextual and individual factors that influence whistleblowing intentions. In addition, this study enhances the body of knowledge regarding the moderating effect of gender in influencing whistleblowing intention, especially for the population of public sector employees in the northern region of Malaysia. From a managerial perspective, this study will assist public sector management in creating a strategic whistleblowing plan for combating the corruption and unethical conduct that happen within the public sector by considering the factors that are included in this study.

2. Literature Review

Whistleblowing Intention: Whistleblowing intention is defined as the probability that someone will decide to come forward and disclose the witnessed wrongdoing (Rustiarini & Sunarsih, 2017). In achieving its goals and objectives, one of the most challenging issues encountered by the organization is misbehavior and malpractice, such as corruption and any other unethical behavior. Hence, the information provided by the internal employee is seen as beneficial guidance and information for the management in dealing with this inappropriate behavior, so that they are aware of the issues and wrongdoings that occur within their organization. In addition, whistleblowing helps to stop misbehavior, fraud, or criminal activity within the organization before it gets out of hand, as well as minimize the potential damages and costs to the organization and its members (Smaili, 2023).

Contextual Determinants

Policy and Procedure and Whistleblowing: Whistleblowing policy and procedure are the internal channels of communication that encourage employees to report the observed wrongdoing that happens within the organization (Barnett et al., 1993). It will be used as a set of strategies and guidelines to establish the environment required for effective whistleblowing management. To make sure the employees understand their roles in the organization's effort to combat misbehavior, policy and procedure should communicate the organization's expectations towards their employees regarding whistleblowing and clearly explain the whole process of the whistleblowing procedure. Hassink et al. (2007) indicate that the basic pillars of an effective whistleblowing policy should include the nature of violations to be reported, officials or bodies to whom wrongdoing should be reported, reporting guidelines and formalities, confidentiality and anonymity, protection from retaliation, and investigation details. Previous studies have found that the availability of the whistleblowing policy and procedure will increase whistleblowing intentions (Previtali & Cerchiello, 2022; Li et al., 2020). Accordingly, the first hypothesis is derived as follows:

H1: There will be a significant relationship between policy and procedure and whistleblowing intention among public sector employees in the northern region of Malaysia.

Training and Whistleblowing: Generally, training is defined as structured learning activities that might enhance knowledge, skills, or attitudes to improve individual performance (Huang, 2021). The knowledge, skills, and attitudes that they gained from the training provided will assist them in ethical decision-making in the future. Due to the potential risk and threat, training will reduce the whistleblower's pressures and constraints due to their natural discomfort (Previtali & Cerchiello, 2022). Furthermore, training is one of the mediums through which management can convey the values of their policies and procedures to their employees (Zarefar et al., 2020). Therefore, training will ensure the whistleblowing policy and procedure meet organizational expectations and values. Previous studies revealed that training is one of the determinant factors influencing whistleblowing intention (Previtali & Cerchiello, 2022). Accordingly, the second hypothesis is derived as below:

H2: There will be a significant relationship between training and whistleblowing intention among public sector employees in the northern region of Malaysia.

Responsiveness of Management and Whistleblowing: Whistleblowing demonstrates a commitment to combating misconduct. When employees are committed to doing something for the organization, they anticipate that management will be similarly committed. Therefore, the employee anticipates that the company will treat the allegations of wrongdoing seriously and respond firmly to such reports (Scheetz, 2016). Their effectiveness and positive response to the reports demonstrate their commitment to combating

wrongdoing in their organization. Based on past experiences and beliefs, employees have their expectations of their management. If a prior whistleblowing effort ended in a poor outcome (i.e., a non-serious approach), people tend to be reluctant to reveal any information in the future because they assume the management will not be serious about resolving the issue (Scheetz, 2016). If a previous whistleblowing effort resulted in a favorable outcome (i.e., satisfactory handling of the reports), people tend to be motivated to report any observed wrongdoing that occurs within the organization (Alleyne et al., 2017). It was found that the responsiveness of management influences whistleblowing intentions (Naufal et al., 2020). Therefore, the third hypothesis is derived as below:

H3: There will be a significant relationship between the responsiveness of management and whistleblowing intention among public sector employees in the northern region of Malaysia.

Reporting Channel and Whistleblowing: When employees encounter and observe misbehavior in the workplace, they may choose to remain silent or to inform others. Therefore, the reporting channel seems to be a medium of communication that allows employees to report perceived wrongdoings at work. This will allow the potential whistleblower to formally and in good faith speak up to the employer. Communication might be directed either to an internal source within the organization (e.g., the human resources department or the internal audit department) or to an external third party (Zhang et al., 2013). Both channels of reporting have their own advantages and disadvantages (Gundlach et al., 2003). Organizations that foster and provide clear reporting channels for misbehavior and corruption will inspire the employees of the organization to blow the whistle (Kanojia et al., 2020). As a result, the reporting will be acknowledged as legitimate behavior by the organizations. It was found that reporting channels influence whistleblowing intentions (Rajeevan, 2020; Kanojia et al., 2020). Therefore, the fourth hypothesis is derived as below:

H4: There will be a significant relationship between reporting channels and whistleblowing intention among public sector employees in the northern region of Malaysia.

Financial Reward and Whistleblowing: Financial reward was defined as a reward in the monetary form obtained by employees as a substitute for the contributions they provide to the company (Pradnyanitasari et al., 2021, as cited in Kusumayanti et al., 2022). There has been a debate among previous researchers on the relationship between financial reward and whistleblowing. Whistleblowing behavior should be regarded as the norm and should not be rewarded because normal behavior does not merit a bonus, and it may also lead to false reports for personal advantage, such as claiming rewards (Teichmann & Falker, 2021) or inflicting reputational damage on organizations (Rajeevan, 2020). However, some researchers stated that the financial reward may motivate the whistleblowing intention. In the dilemma situation, the financial reward is the booster that encourages potential whistleblowers to come forward (Teichmann & Falker, 2021) if the reward is attractive enough to draw their attention (Hardi et al., 2020). It was found that financial reward influences whistleblowing intention (Al-Olimat, 2020; Hardi et al., 2020). Therefore, the fifth hypothesis is derived as below:

H5: There will be a significant relationship between financial rewards and whistleblowing intention among public sector employees in the northern region of Malaysia.

Seriousness Level of Wrongdoing and Whistleblowing: Alleyne et al. (2017) define the seriousness level of wrongdoing as a person's perception of the degree of the consequences of unethical behavior, and it will influence a person's judgment in decision-making (Jones, 1991). There are various ways a person can determine the seriousness of wrongdoing. Employees may prefer to report a serious issue than a non-serious one because they predict greater damage to the company if it is not disclosed (Hanif & Odiatma, 2017). Additionally, despite the monetary worth of a behavior, certain behaviors, such as sexual harassment, racial discrimination, or age discrimination, may be considered serious issues (Brink et al., 2015). Therefore, people will have various viewpoints about how serious an act of wrongdoing is, which will influence their decision about whether to report it or not. It was found that the seriousness level of wrongdoing influences whistleblowing intention (Khan et al., 2022; Kanojia et al., 2020). Therefore, the fourth hypothesis is derived as below:

H6: There will be a significant relationship between the seriousness level of wrongdoing and whistleblowing intention among public sector employees in the northern region of Malaysia.

Individual Determinants

Knowledge and Whistleblowing: To make morally and ethically appropriate decisions, a person must have a sense of what is right (Sankovic, 2018). The employees must be aware of the whistleblowing policy and understand the importance of whistleblowing in their organization. This includes having awareness of the reporting process and procedure as well as the belief that the practice of whistleblowing to combat unethical behavior is beneficial to them and their organization. The knowledge possessed by an individual related to the importance of whistleblowing and awareness of the process and procedure will assist them in deciding whether to disclose the witnessed wrongdoing or not. Okafor et al. (2020) indicated that, generally, people may believe that whistleblowing will eradicate unethical behavior and corruption in public sector administration, yet there is a low level of awareness of whistleblowing programs being implemented by the government. It was found that knowledge influences whistleblowing intentions (Chang et al., 2017). Therefore, the seventh hypothesis is derived as below:

H7: There will be a significant relationship between knowledge and whistleblowing intention among public sector employees in the northern region of Malaysia.

Trust and Whistleblowing: Robbins and Judge (2013) defined trust as a positive expectation or hope toward the words, behaviors, and policies of other people that will influence a person's decision-making (Simpson et al., 2013). Trust in leadership will result in positive behaviors such as commitment to an organization and high employee performance (Tyas & Utami, 2020). In relation to whistleblowing, trust is one of the vital elements that build up confidence among potential whistleblowers because they are disclosing a sensitive and confidential issue and may receive potential harm.

When an employee trusts their supervisor, they will feel free and safe to speak out about any issue or viewpoint. This is due to the fact that trust enhances a person's confidence that the leader will cooperate and help resolve the report (Geng, 2017). It was found that trust influences whistleblowing intentions (Tyas & Utami, 2020; Yang & Xu, 2020). Therefore, the eighth hypothesis is derived as below:

H8: There will be a significant relationship between trust and whistleblowing intention among public sector employees in the northern region of Malaysia.

Gender as Moderating Variable: According to Hajiabbasi et al. (2022), there are differences in the information processing mechanisms between males and females. As a result, these differences will lead to differences in the decision-making process between males and females. This is supported by Helmayunita (2018), which indicates that there is a significant influence for men and women in whistleblowing intentions because of the differences in construction and personality between males and females. Some of the previous studies found that females have stronger whistleblowing intentions compared to males (Hajiabbasi et al., 2022). Meanwhile, it was found that males have stronger whistleblowing intentions compared to females (Chang et al., 2017). In addition, it was found that gender has no relationship with whistleblowing intention (Nawawi & Salin, 2018). Meanwhile, gender as a moderating variable in the whistleblowing study has been examined earlier by Hajiabbasi et al. (2022), Puni and Hilton (2019), and Lasmini (2018). Therefore, the ninth hypothesis is derived as below:

H9: There will be a significant moderating role of gender in the relationship between factors (contextual determinants and individual determinants) and whistleblowing intention among public sector employees in the northern region of Malaysia.

Theory of Prosocial Behavior: According to Brief and Motowidlo (1986), prosocial behavior can be explained as a member's behavior or action towards another person or organization to which they are affiliated to promote well-being. The theory of prosocial behavior has been widely used in earlier studies on whistleblowing since it is a form of prosocial behavior. This behavior consists of both selfish motives (egoistic) and unselfish motives (altruistic) on the part of whistleblowers (Dozier & Miceli, 1985). The individual who engages in this behavior strives to satisfy the individual's motivation as well as benefit others. The ultimate goal of whistleblowing is to eradicate the unethical conduct and wrongdoing behavior that happen within organizations. This theory consists of individual determinants as the elements that derive from the individual and contextual determinants, which derive from the institutional, organizational, and environmental determinants (Brief & Motowidlo, 1986).

Figure 1: Research framework
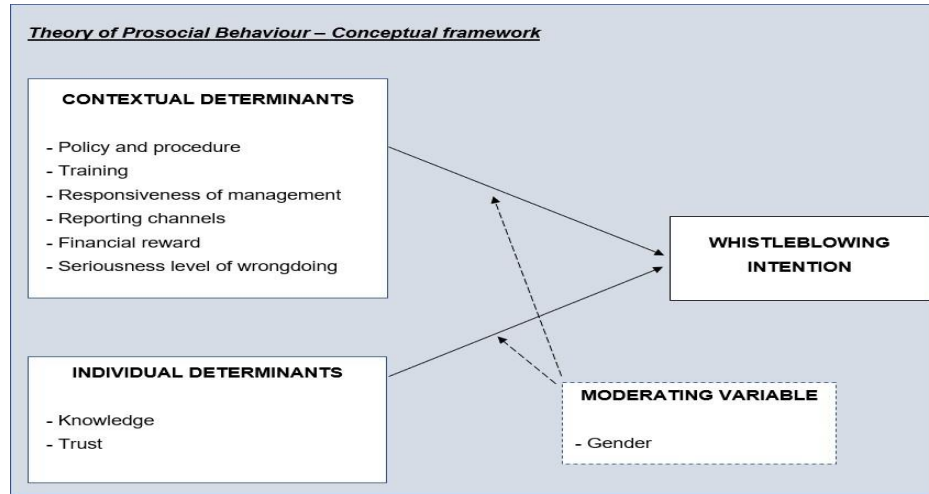
3. Methodology

This study applied quantitative research, and the data was collected via an online survey from 123 public sector employees in the northern region of Malaysia, which covers Perlis, Kedah, and Penang. A stratified random sampling technique was used to segregate the population based on the state of the workplace, which is Perlis, Kedah, and Penang. Followed by quota sampling to ensure that certain groups are fairly represented in the study. Participants were asked to rate the degree to which they agreed with each of the statements using a 6-point Likert scale. In total, 46 items were used to measure nine variables. Data were analyzed using structured partial least squares modeling (PLS-SEM), and Smart PLS version 4 statistical software was used for the data analysis. This study adopted measurement questions from previous research and adapted them based on the suitability of this study. Six-point Likert scales ranging from strongly disagree to strongly agree were used to measure the variables in this study. Chomeya (2010) stated that to emphasize discrimination and reliability, the researcher should use the 6-point Likert scale to help the respondents choose the answer, as there is no neutral point. The measurement was taken from Otchere et al. (2022), Latan et al. (2018), and other previous researchers.

4. Results

Respondent's Profile: There were 123 total respondents involved in this study. Table 1 shows that 57.72% of the respondents are female and the other 42.28% are male. In detail, most of the respondents are working in Kedah (50.41%), another 38.21% are working in Penang, and the remaining 11.38% are working in Perlis. Public sector employees from the Ministry of Education had the highest number of respondents in this study, which was 44.72%, followed by the Ministry of Health (20.33%), the Administration of State Government (12.20%), the Ministry of Higher Education (7.32%), the Ministry of Home Affairs (4.88%), the Ministry of Rural and Regional Development (2.44%), the Ministry of Agriculture and Food Industries (2.44%), the Prime Minister's Department (1.63%), the Ministry of Finance (1.63%), the Ministry of Housing and Local Government (1.63%), and the Ministry of Transport (0.81%).

Table 1: Respondent's Background and Profile

Variable	Frequency	Percentage
GENDER		
Males	52	42.28
Females	71	57.72
Total	123	100%
State of Workplace		
Perlis	14	11.38
Kedah	62	50.41

Penang	47	38.21
Total	123	100%
Ministry		
Prime Minister's Department	2	1.63
Ministry of Home Affairs	6	4.88
Ministry of Health	25	20.33
Ministry of Finance	2	1.63
Ministry of Rural and Regional Development	3	2.44
Ministry of Education	55	44.72
Ministry of Higher Education	9	7.32
Ministry of Transport	1	0.81
Ministry of Agriculture and Food Industries	3	2.44
Ministry of Housing and Local Government	2	1.63
Administration of state government	15	12.20
Total	123	100%

Measurement Model

Reliability and Validity: In this study, all constructs were above 0.70, which met the rule of thumb for composite reliability, and all constructs in Cronbach's alpha also met the rule of thumb of being larger than 0.60. In addition, the value of AVE is larger than 0.50, indicating that they have met the acceptable standard of convergent validity.

Table 2: Measurement Model Analysis

Variables	Items	Loadings	Ave	Cronbach's Alpha	Composite Reliability
Whistleblowing intention	WI1	0.922			
	WI2	0.889	0.678	0.876	0.912
	WI3	0.907			
	WI4	0.708			
	WI5	0.654			
	PP1	0.893			
	PP2	0.889			
Policies and procedures	PP3	0.903	0.680	0.899	0.925
	PP4	0.858			
	PP5	0.856			
	PP6	0.457			
	TR1	0.839			
Training	TR2	0.780	0.619	0.847	0.890
	TR3	0.809			
	TR4	0.842			
	TR5	0.649			
	RM1	0.783			
Responsiveness of management	RM2	0.843	0.700	0.893	0.921
	RM3	0.809			
	RM4	0.888			
	RM5	0.856			
	RC1	0.767			
Reporting channels	RC2	0.851	0.671	0.877	0.911
	RC3	0.779			
	RC4	0.879			
	RC5	0.815			
	RW1	0.933			
Financial reward	RW2	0.951	0.759	0.892	0.926

	RW3	0.827			
	RW4	0.760			
	SL1	0.934			
Seriousness level of wrongdoing	SL2	0.946	0.859	0.946	0.961
	SL3	0.933			
	SL4	0.894			
	KN1	0.574			
Knowledge	KN2	0.908	0.618	0.786	0.862
	KN3	0.891			
	KN4	0.722			
	TRST1	0.781			
	TRST2	0.743			
	TRST3	0.908			
Trust	TRST4	0.922	0.739	0.949	0.957
	TRST5	0.913			
	TRST6	0.887			
	TRST7	0.876			
	TRST8	0.829			

Discriminant Validity

Discriminant validity for this study was tested by applying the Heterotrait-Monotrait Ratio Correlations (HTMT) criterion suggested by Hair et al. (2022). The result shown in Table 3 indicates that all values were below 0.90, which confirms that the discriminant validity in this study has been established. Having such results confidently confirms that the model for this study has adequate reliability and validity.

Table 3: HTMT Criterion Analysis

	KN	PP	RC	RM	RW	SL	TR	TRST	WI
KN									
PP	0.697								
RC	0.839	0.827							
RM	0.739	0.825	0.895						
RW	0.258	0.378	0.496	0.338					
SL	0.604	0.275	0.312	0.346	0.152				
TR	0.583	0.555	0.698	0.595	0.595	0.312			
TRST	0.780	0.739	0.835	0.765	0.369	0.284	0.558		
WI	0.720	0.747	0.619	0.670	0.351	0.467	0.613	0.524	

Structural Analysis: The results in Table 4 present the hypothesis testing in the structural model for this study. Firstly, all the Variance Inflation Factor (VIF) values for the inner model are below 5, which mean that collinearity has no substantial effect on the structural model for this study.

Policy and procedure were found to have a significant relationship with whistleblowing intention ($\beta = 0.511$, $p < 0.05$). Furthermore, in terms of the effect size, the f^2 values show that this variable has a moderate effect on this model. Therefore, **H1 is accepted**. This finding implies that the availability of policies and procedures will encourage whistleblowing intentions. This result is in line with the studies conducted by Previtali and Cerchiello (2022) and Li et al. (2020). According to Li et al. (2020), the availability of the whistleblowing policy helps employees understand that any wrongdoings that happen within the organization constitute a threat to the organization and even harm to the public, and it will provide them with clear guidelines on what they need to do after they witness the wrongdoing that happens within the organization.

Training was found to have a significant relationship with whistleblowing intention ($\beta = 0.203$, $p < 0.05$).

Furthermore, in terms of the effect size, the f^2 values show that this variable has a small effect on this model. Therefore, **H2 is accepted**. This finding implies that whistleblowing training will encourage whistleblowing intentions. This result is in line with the study conducted by Previtali and Cerchiello (2022). As whistleblowing is a complex situation, ethics training will improve problem-solving capacity and help one make proper decisions when facing ethical dilemmas (Cho & Song, 2015). The training is the key moment to enhance knowledge and understanding regarding how to react and what they need to do when they observe wrongdoing.

The responsiveness of management was found to have no significant relationship with whistleblowing intention ($\beta = 0.186$, $p > 0.05$). In addition, in terms of the effect size, the f^2 values show that this variable has a small effect on this model. Therefore, **H3 is rejected**. This finding is an indication that whistleblowing intentions are not influenced by the responsiveness of management. This result is in contrast with the study conducted by Naufal et al. (2020). However, this result is in line with Salleh and Yunus (2015). According to Nurhidayat and Kusumasari (2018), whistleblowing is regarded as a positive duty that, if not carried out, will instigate a breach of morality. Therefore, whether management's response was positive or negative, employees will continue to report because it is their duty and responsibility, as well as fulfilling their altruistic motives, to protect the organization from unethical conduct.

The reporting channel was found to have a significant relationship with whistleblowing intention ($\beta = -0.275$, $p < 0.05$). Furthermore, in terms of the effect size, the f^2 values show that this variable has a small effect on this model. Therefore, **H4 is accepted**. This finding implies that the availability of the reporting channel will discourage whistleblowing among employees. This result is in contrast with Kanojia et al., 2020, who found that the presence of a reporting channel will encourage whistleblowing intentions. However, Amoako et al. (2022) revealed that employees prefer the informal reporting channel. They also indicate that, recently, several studies have revealed that social media has played a key role in disseminating information. As technology is at its peak and internet facilities are accessible when needed, social media is a great platform for employees to disclose witnessed wrongdoing rather than a formal reporting channel.

Financial reward was found to have a significant relationship with whistleblowing intention ($\beta = 0.133$, $p < 0.05$). Furthermore, in terms of the effect size, the f^2 values show that this variable has a small effect on this model. Therefore, **H5 is accepted**. This finding implies that a financial reward will encourage whistleblowing intentions. This result is in line with the studies conducted by Al-Olimat (2020). Although it is argued that whistleblowing behavior should be considered the norm and therefore should not be rewarded, it will be a booster to influence and attract prospective whistleblowers when they are in a dilemma (Teichmann & Falker, 2021). As per the prosocial spirit, instead of just fulfilling the altruistic motives, they will also fulfill the egoistic motives when they gain a financial reward after reporting the wrongdoing.

The seriousness level of wrongdoing was found to have a significant relationship with whistleblowing intention ($\beta = 0.136$, $p < 0.05$). Furthermore, in terms of the effect size, the f^2 values show that this variable has a small effect on this model. Therefore, **H6 is accepted**. This finding implies that the whistleblowing intention will be high if the wrongdoing is serious. This study is in line with the studies conducted by Khan et al. (2022) and Kanojia et al. (2020). Employees report a serious issue more than a non-serious one because they predict greater damage to the company if it is not disclosed (Hanif & Odiatma, 2017). As per prosocial spirit, they will fulfill their altruistic motives, which are to protect others (their organization and its members) from disaster.

Knowledge was found to have a significant relationship with whistleblowing intention ($\beta = 0.318$, $p < 0.05$). Furthermore, in terms of the effect size, the f^2 values show that this variable has a small effect on this model. Therefore, **H7 is accepted**. This finding implies that the high level of whistleblowing knowledge possessed by the employee will increase the employee's whistleblowing intention. This result is in line with the study conducted by Chang et al. (2017). According to Okafor et al. (2020), the management of the public sector should use social media, television and radio advertisements, and other channels to promote the whistleblowing campaign and increase awareness about the benefits and procedures of whistleblowing. The whistleblowing intention will increase when they have the understanding and belief that whistleblowing is a positive behavior that benefits themselves, their members, the organization, and the country (M. Ariff et al.,

2019). As per the prosocial spirit, they will fulfill their altruistic motives when they utilize their knowledge to help others stop the misconduct that happens within the organization.

Trust was found to have a significant relationship with whistleblowing intention (β = -0.160, $p < 0.05$). Furthermore, in terms of the effect size, the f^2 values show that this variable has a small effect on this model. Therefore, **H8 is accepted**. This finding implies that trust will discourage whistleblowing intentions. This result is in line with the study conducted by Lavena (2013). High levels of trust will make it difficult for the employee to formally report witnessed misconduct (Lavena, 2013). It is because the employee will informally inform the supervisor that they trust regarding the witnessed wrongdoing instead of using the formal channel that has been established by the organization.

Table 4: Structural Model Analysis and Hypothesis Testing

	VIF	Path coefficients	p-value	f^2 value	Decision	R^2 values	Q^2 values
KN > WI	2.730	0.318	p < 0.05	0.104	Supported		
PP > WI	2.500	0.511	p < 0.05	0.294	Supported		
RC > WI	4.567	-0.275	p < 0.05	0.047	Supported		
RM > WI	3.330	0.186	p > 0.05	0.029	Rejected	0.644	0.538
RW > WI	1.585	0.133	p < 0.05	0.031	Supported		
SL > WI	1.565	0.136	p < 0.05	0.033	Supported		
TR > WI	2.051	0.203	p < 0.05	0.056	Supported		
TRST > WI	2.830	-0.160	p < 0.05	0.025	Supported		

According to Hair et al. (2022), the most commonly used measure to evaluate the structural model's explanatory power is the coefficient of determination (R^2) value, which represents a measure of in-sample predictive power. The R^2 values for this study were 0.644, which indicates that the model's explanatory power is substantial (Cohen, 1988).

This study employed the technique of predictive relevance of Q^2 analysis and PLS prediction which was suggested by Hair et al. (2022), to test the structural model. The Q^2 value for this study was 0.538, which is greater than zero. Henceforth, the predictive relevance of this model was established. The results of the PLS prediction procedure in Table 5 show that all indicators in the PLS-SEM analysis have lower RMSE (or MAE) values compared to the naive LM benchmark. Therefore, it can be concluded that this model has high predictive power.

Table 5: PLS predict procedure

	PLS-SEM_RMSE	PLS-SEM_MAE	LM_RMSE	LM_MAE
WI1	0.560	0.440	0.709	0.505
WI2	0.569	0.419	0.724	0.525
WI3	0.549	0.417	0.702	0.497
WI4	0.797	0.528	0.811	0.587
WI5	0.653	0.491	0.749	0.538

Partial Least Square – Multigroup Analysis (MGA): As suggested by Cheah et al. (2020), MGA was used in this study to analyze gender as a moderating variable. Table 6 indicates the results of the PLS-MGA analysis in analyzing the moderating effect of gender in the relationship between the independent variables and the dependent variable. PLS-MGA is an appropriate nonparametric technique to evaluate the group differences existing within subgroups of data for estimation parameters (Sarstedt et al., 2011) and to understand which among them are meaningful and significant (Sarstedt et al., 2014). The results found that gender is significant in moderating the relationship between reporting channel, seriousness level of wrongdoing, and knowledge

toward whistleblowing. For the reporting channel and seriousness level of wrongdoing, the differences showing the negative sign concluded that the whistleblowing intention is higher among female employees compared to male employees. This result is in line with the studies conducted by Hajiabbasi et al. (2022) and Puni and Hilton (2019). Whereas, for knowledge, the differences showing the positive sign concluded that the whistleblowing intention is higher among male employees compared to female employees. This result is in line with the study conducted by Chang et al. (2017).

There is a significant influence for men and women in whistleblowing intentions because of the differences in construction and personality between men and women (Helmayunita, 2018). In addition, males and females have differences in the information processing mechanism (Hajiabbasi et al., 2022). In this study, male and female employees had different perceptions and points of view on the reporting channels, the seriousness level of wrongdoing, and their knowledge. Then, these differences contributed to the differences in their whistleblowing intentions, where female employees have stronger whistleblowing intentions for the reporting channels and seriousness level of wrongdoing, while male employees have stronger whistleblowing intentions for knowledge.

On the other hand, it was found that gender is not significant in moderating the relationship between policy and procedure, training, responsiveness of management, financial reward, and trust. The findings explained that there is more or less similar whistleblowing intention among male and female employees. This result is in line with the study conducted by Nawawi and Salin (2018). Miceli and Near (1992) have explained that the difference between genders is marginal, and the explanation behind the phenomenon is not clear. According to Lasmini (2018), the failure of gender to moderate other relationships is due to an insufficient number of samples representing each gender. Therefore, H9 is partially accepted.

Table 6: PLS-MGA analysis for the moderating variable

Relationship	Difference (Male-Female)	*p*-value
KN -> WI	0.841	p < 0.05
PP -> WI	0.338	p > 0.05
RC -> WI	-0.853	p < 0.05
RM -> WI	0.092	p > 0.05
RW -> WI	-0.137	p > 0.05
SL -> WI	-0.286	p < 0.05
TR -> WI	0.090	p > 0.05
TRST -> WI	-0.229	p > 0.05

5. Conclusion

As a conclusion, the findings of this study will help public sector management foster whistleblowing among public sector employees, achieve the NACP's objectives, and improve the ranking and performance of the CPI. The public sector management should have a look at the determinant factors of the policy and procedure, training, reporting channel, financial reward, seriousness level of wrongdoing, knowledge, trust, as well as gender, to encourage whistleblowing among public sector employees in Malaysia. On the other hand, this result will contribute to the body of knowledge regarding the determinant factors of whistleblowing intention and gender as the moderating variable among public sector employees.

The existence of obstacles and limitations in the implementation stages of any research is indispensable. The first limitation of this study is that it was found that there was no significant relationship between the responsiveness of management and whistleblowing intention. Furthermore, this study found that gender has no significant influence on moderating the relationship between policy and procedure, training, responsiveness of management, financial reward and trust toward whistleblowing intentions. These insignificant results may be due to the limitations of the sample size in this study. Therefore, it is suggested for future research to increase the number of samples.

Second, in this study, gender as a moderating variable was exploited. Other moderating variables, such as job position, service tenure, and other variables, can be employed in further studies. Third, the population of this study was public sector employees based on ministries under PSD's administration. As corruption and integrity issues are always associated with the enforcement agency, it is recommended for future research to understand the whistleblowing intentions among the employees of the agency. Lastly, the possibility of social desirability bias may exist. The respondents may be driven to give a response or answer based on a socially desirable outcome, which is to please their peers and others, rather than the actual situation or their genuine thoughts.

Discussion: The findings from the customers' age groups concur with H1 (the different customer age groups experience mobile network operators differently) and are compatible with the study conducted by (Amoah, Radder, & van Eyk, 2018; Jonas, Radder, & van Eyk, 2019; Radder & Han, 2015). Respondents aged between 19 and 30 constituted the higher number of customers who experienced network operators differently. About 51.8%experienced the operators similarly.

References

Abdullah Sani, N., Abdullah Salim, A.S., & Jaffar, N. (2022). The influences of self-efficacy, empathy, ethical leadership and power distance on whistleblowing intention. *IBIMA Business Review,* 2022(2022).

Alleyne, P., Charles-Soverall, W., Broome, T. & Pierce, A. (2017). Perceptions, predictors and consequences of whistleblowing among accounting employees in Barbados. *Meditari Accountancy Research,* 25(2), 241-267.

Al-Olimat, N. (2020). Whistleblowing intentions among Jordanian auditors: the role of financial incentives and authentic leadership. *International Journal of Scientific and Technology Research,* 9(1), 3387-3394.

Amoako, K. O., Amoako, I. O., Tuffour, J. & Marfo, E. O. (2022). Formal and informal sustainability reporting: an insight from a mining company's subsidiary in Ghana. *Journal of Financial Reporting and Accounting,* 20(5), 897-925.

Barnett, T., Cochran, D. S. & Taylor, G. S. (1993). The internal disclosure policies of private-sector employers: An initial look at their relationship to employee whistleblowing. *Journal of Business Ethics,* 12(2), 127-136.

Brief, A. P. & Motowidlo, S. J. (1986), Prosocial organizational behaviors. *The Academy of Management Review,* 11(4), 710-725.

Brink, A., Cereola, S. & Menk, K. (2015). The effects of personality traits, ethical position, and the materiality of fraudulent reporting on entry-level employee whistleblowing decisions. *Journal of Forensic and Investigative Accounting,* 7(1), 180-210.

Chang, Y., Wilding, M. A. & Shin, M. (2017). Determinants of whistleblowing intention; evidence from the South Korean government. *Public Performance & Management Review,* 40(4), 676- 700.

Cheah, J., Thurasamy, R., Memon, M. A., Chuah, F. & Ting, H. (2020). Multigroup Analysis using SmartPLS: Step-by-Step Guidelines for Business Research. *Asian Journal of Business Research,* 10(3), X-XIX.

Cho, Y. J. & Song, H. J. (2015). Determinants of whistleblowing within government agencies. *Public Personnel Management,* 44(4), 450-472.

Chomeya, R. (2010). Quality of psychology test between Likert scale 5 and 6 points. *Journal of Social Sciences,* 6(3), 399-403.

Cohen, J. (1988). Statistical Power Analysis for the Behavioral Sciences. Lawrence Erlbaum Associates, Inc., Hillsdale.

Dozier, J. B. & Miceli, M. P. (1985). Potential predictors of whistle-blowing: A prosocial behavior perspective. *The Academy of Management Review,* 10(4), 823-836.

Ebaid, I. E. S. (2023). The courage of whistleblowing of prospective accountants: evidence from Saudi Arabia. *Journal of Applied Research in Higher Education,* 15(3), 713-730.

Geng, X. (2017). The Effect of a Leader's Emotional Intelligence on the Subordinate's Intention to Whistleblow (Doctoral dissertation, College of Business and Economics, West Virginia University).

Gundlach, M. J., Douglas, S. C. & Martinko, M. J. (2003). The Decision to Blow the Whistle: A Social Information Processing Framework. *Academy of Management Review,* 28(1), 107– 123.

Hair, J. F., Hult, G. T. M., Ringle, C. M. & Sarstedt, M. (2022). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). 3rd edition. Thousand Oaks, CA: Sage.

Hajiabbasi, M., Vatanparast, M. R., Banimahd, B. & Azadehdel, M. R. (2022). The Effect of Professional Commitment on Auditors' Ethical Whistleblowing: Moderating Role of Gender and Age. *International Journal of Ethics & Society,* 4(1), 38-46

Hanif, R. A. & Odiatma, F. (2017). Pengaruh personal cost reporting, status wrong doer, dan tingkat keseriusan kesalahan terhadap whistleblowing intention. *Jurnal Akuntansi Keuangan Dan Bisnis,* 10(1), 11–20.

Hardi, Wiguna, M. & Mela, N.F. (2020). The Factors Affecting Intention to Internal Whistleblowing: An Idea of Free Cheating Environment. *Earth and Environmental Science,* 469(2020), 012022.

Hassink, H., De Vries, M. & Bollen, L. (2007). A content analysis of whistleblowing policies of leading European companies. *Journal of Business Ethics,* 75(1), 25–44.

Helmayunita, N. (2018). The Influence of Personal Cost of Reporting, Organizational Commitment, Fraud Seriousness Level, and Gender On Intentions to Whistle-blowing. *Advances in Economics, Business and Management Research,* 57, 598-605.

Huang, T. (2001). The relation of training practices and organizational performance in small and medium-sized enterprises. *Education + Training,* 43(8/9), 437-444.

Ismail, A. M., Raja Mamat, R. M. S. & Hassan, R. (2018). The influence of individual and organizational factors on external auditor whistleblowing practice in government-linked companies (GLC'S). *Asia-Pacific Management Accounting Journal (APMAJ),* 13(1), 231- 266.

Jones, T. M. (1991). Ethical decision making by individuals in organizations: An issue-contingent model. *Academy of Management Review,* 16(2), 366-395.

Kanojia, S., Sachdeva, S. & Sharma, J.P. (2020). Retaliatory effect on whistle-blowing intentions: a study of Indian employees. *Journal of Financial Crime,* 27(4), 1221-1237.

Khan, J., Saeed, I., Zada, M., Ali, A., Contreras-Barraza, N., Salazar-Sepúlveda, G. & Vega- Muñoz, A. (2022). Examining whistleblowing intention: The influence of rationalization on wrongdoing and threat of retaliation. *International journal of environmental research and public health,* 19(3), 1752.

Kusumayanti, N. W. T., Wirama, D. G., Putri, I. A. D. & Krisnadewi, K. A. (2022). Factors Affecting Whistleblowing Intention (Studies at Universities in Bali). *Budapest International Research and Critics Institute-Journal (BIRCI-Journal),* 5(2), 11955-11966.

Lasmini, N. N. (2018). Implementasi Theory Planned Behavior Pada Perilaku Whistleblowing Dengan Faktor Demografi Sebagai Variabel Moderasi. *Seminar Ilmiah Nasional Teknologi, Sains, dan Sosial Humaniora (SINTESA),* 1, 421-430.

Latan, H., Chiappetta Jabbour, C. J. & Lopes de Sousa Jabbour, A. B. (2019). 'Whistleblowing Triangle': Framework and Empirical Evidence. *Journal of Business Ethics,* 160, 189–204.

Lavena, C. F. (2013). Deciding to blow the whistle: How Individual and Organizational Factors Influence the Reporting of wrongdoing in the government (Doctoral dissertation, The State University of New Jersey)

Li, W., Choi, K. W. S. & Ho, S. Y. (2020). Understanding the whistle-blowing intention to report a breach of confidentiality. *Communications of the Association for Information Systems,* 47(1), 4.

Md. Ariff, A., Hashim, H. A., Taha, R., W. M. & Salleh, N. N. (2019). Insights into Whistleblowing Practices in Malaysian Companies. *International Journal of Innovation, Creativity and Change,* 7(5), 244-265.

Md. Lazim, C. S. L., Ismail, N. D. B. & Khamar Tazilah, M. D. A. (2022). Determinants of whistleblowing behavior among public sector employees in Malaysia. *South East Asia Journal of Contemporary Business, Economics and Law,* 26(1).

Miceli, M. P. & Near, J. P. (1992). Blowing the Whistle: The Organisational and Legal Implications for Companies and Employees, Lexington Books, New York, NY.

Moreira, P. (2019). Resilient Institutions. Transparency International. Retrieved March 3, 2023, from https://www.transparency.org/en/news/resilient-institutions

Naufal, M., Sofia, A., Prawira, I. F. A. & Apandi, R. N. N. (2020). Whistleblower dilemma: Individual and situational factors in whistleblowing intention. *International Journal of Innovation, Creativity and Change,* 11(12), 43-60.

Nawawi, A. & Salin, A.S.A.P. (2018). Whistle-blowing intentions – evidence from Malaysian PLC. *International Journal of Law and Management,* 60(5), 1111-1125.

Nurhidayat, I. & Kusumasari, B. (2018). Strengthening the effectiveness of whistleblowing system: A study for the implementation of anti-corruption policy in Indonesia. *Journal of Financial Crime,* 25(1), 140-154.

Okafor, O. N., Adebisi, F. A., Opara, M. & Okafor, C. B. (2020). Deployment of whistleblowing as an

accountability mechanism to curb corruption and fraud in a developing democracy. *Accounting, Auditing and Accountability Journal,* 33(6), 1335-1366.

Otchere, O. A. S., Owusu, G. M. Y. & Bekoe, R. A. (2022). Determinants of whistleblowing intentions of accountants: a middle range theoretical perspective. *Journal of Financial Crime,* (ahead-of-print).

Pratolo, S., Sadjiman, V. P. & Sofyani, H. (2020). Determinants of whistleblowing intention of employees in universities: Evidence from Indonesia. *Riset Akuntansi dan Keuangan Indonesia,* 5(1), 92-101.

Previtali, P. & Cerchiello, P. (2022). Organizational determinants of whistleblowing. A study of Italian municipalities. *Public Organization Review,* 22(4), 903–918.

Puni, A. & Hilton, S. K. (2020). Power distance culture and whistleblowing intentions: the moderating effect of gender. *International Journal of Ethics and Systems,* 36(2), 217-234.

Rajeevan, S. (2020). Building a bulletproof whistleblowing environment: An accountant's perspective. *Asian Journal of Accounting Research,* 5(1), 15-31.

Robbins, S. P. & Judge, T. A. (2013). *Organizational Behavior Individuals* (15th ed.). Pearson.

Rustiarini, N. W. & Sunarsih, N. M. (2017). Factors Influencing the Whistleblowing Behavior: A Perspective from the Theory of Planned Behavior. *Asian Journal of Business and Accounting,* 10(2), 187 – 214.

Salleh, K. & Yunus, N. S. (2015). Encouraging factors for whistleblowing in the public sector: Malaysian case evidence. In: International Conference on Accounting Studies (ICAS) 2015, 159-165.

Sankovic, D. (2018). The impact of organizational silence: motives and consequences related to failure to report observed coworkers' wrongdoing (Doctoral dissertation, Northcentral University).

Sarstedt, M., Henseler, J. & Ringle, C. M. (2011). Multigroup analysis in partial least squares (PLS) path modeling: Alternative methods and empirical results. In Measurement and research methods in international marketing (pp. 195-218). Emerald Group Publishing Limited.

Sarstedt, M., Ringle, C. M., Henseler, J. & Hair, J. F. (2014). On the emancipation of PLS-SEM: A commentary on Rigdon (2012). *Long range planning*, 47(3), 154-160.

Scheetz, A. M. (2016). The effect of psychological contract violations on employee intentions to report fraud (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (Order No. 28078846)

Simpson, B., Harrell, A. & Willer, R. (2013). Hidden paths from morality to cooperation: Moral judgments promote trust and trustworthiness. *Social Forces,* 91(4), 1529-1548.

Smaili, N. (2023). Building an ethical culture by improving conditions for whistleblowing. *Journal of Business Strategy,* 44(1), 37-43.

Teichmann, F. M. & Falker, M. C. (2021). Whistleblowing Incentives. *Journal of Financial Crime,* 28(2), 394-405.

Transparency International. (2023). Corruption Perceptions Index 2022. Transparency International. https://images.transparencycdn.org/images/Report_CPI2022_English.pdf

Tyas, E. Y. & Utami. I. (2020). Trust in leadership and incentives: Experimental study of whistleblowing intention. *Jurnal Akuntansi dan Auditing Indonesia,* 24(1), 43-54.

Yang, L. & Xu, R. (2020). The effects of retaliation on whistleblowing intentions in China's banking industry. *Journal of Accounting and Organizational Change,* 16(2), 215-235.

Zainol, Z., Zollkefli, A. Q., Nasir, A. N., Zakaria, F. M. & Kamaruzaman, N. Z. (2018). Factors influencing whistleblowing intention among accountants in Malaysia. *The European Proceedings of Social and Behavioural Sciences,* 44(1), 79-88.

Zarefar, A., Arfan, T. & Zarefar, A. (2020). Evaluation on implementation of the whistleblowing system in state development audit agency. *International Business Research,* 13(5), 113-113.

Zhang, J., Pany, K. & Reckers, P. M. J. (2013). Under which conditions are whistleblowing 'best practices' best? *Auditing: A Journal of Practice and Theory,* 32(3), 171-181